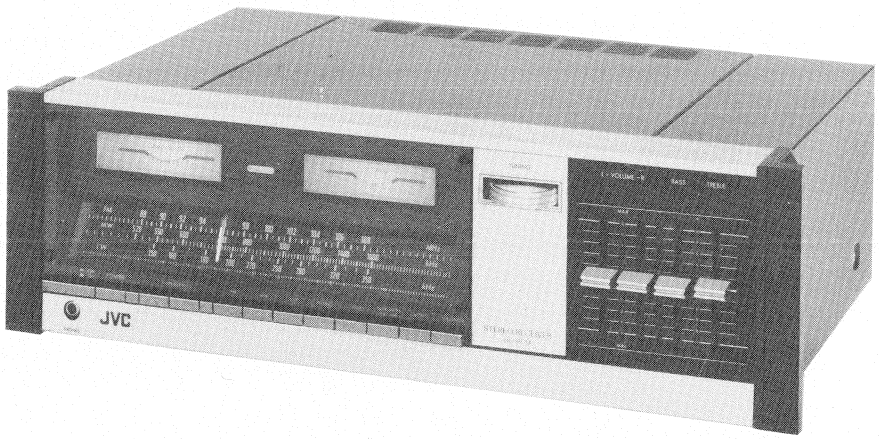
JVC

# SERVICE MANUAL

## MODEL JR-S100L

STEREO RECEIVER




No. 2373
MAY 1976

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# 1. Specifications

| | | |
|---|---|---|
| **Dimensions** | : | 6-5/16"(H) x 19-11/16"(W) x 13-5/16"(D)<br>(16cm x 50cm x 33.8cm) |
| **Weight** | : | 18.7 lbs (8.5 kg) |
| **Amplifier Section** | | |
| RMS Power (Both channels driven) | : | 20W per channel, min. RMS at 8 ohms<br>21W per channel, min. RMS at 4 ohms<br>(from 40Hz to 20kHz at no more than 0.5% total harmonic distortion) |
| RMS Power (Both channels driven at 1kHz) | : | 22W per channel at 8 ohms<br>25W per channel at 4 ohms |
| Total Harmonic Distortion | : | 0.5% at rated output, 4 or 8 ohms<br>0.2% at 1kHz, 1W |
| Damping Factor | : | 40 at 8 ohms; 20 at 4 ohms |
| Input Sensitivity, Impedance and Signal to Noise Ratio at Rated Output Power (Unweighted) | : | Phono: 2.5mV/50kΩ & 60dB<br>Aux.: 180mV/50kΩ & 80dB<br>Tape Mon: 180mV/50kΩ & 80dB<br>DIN Tape: 180mV/50kΩ & 80dB |
| Recording Output Level | : | 150mV (Pin), 30mV/80kΩ (DIN) |
| Frequency Response | : | 20 to 20kHz |
| Tone Control Range | : | ±10dB at 50Hz or 10kHz |
| Loudness Control Range | : | 12dB at 50Hz, 6dB at 10kHz |
| **FM Tuner Section** | | |
| Usable Sensitivity (±40kHz Deviation) | : | 2.2μV at 300Ω and S/N: 30dB |
| Total Harmonic Distortion at 1kHz and 100% Modulation | : | DIN 45 500<br>0.4% (Mono), 0.6% (Stereo)<br>IHF 1975<br>0.4% (Mono) at 100Hz or 1kHz<br>0.6% (Mono) at 6kHz<br>0.6% (Stereo) at 100Hz or 1kHz<br>0.8% (Stereo) at 6kHz |
| Signal to Noise Ratio | : | DIN 45 500<br>60dB (Mono), 50dB (Stereo)<br>IHF 1975<br>65dB (Mono), 55dB (Stereo) |
| Selectivity | : | 50dB IHF Alternated |
| Capture Ratio | : | 2.5dB |
| Image Rejection | : | 60dB |
| IF Rejection | : | 80dB at 98MHz |
| Stereo Separation | : | 30dB at 100Hz, 35dB at 1kHz, 25dB at 10kHz |
| **MW & LW Tuner Section** | | |
| Usable Sensitivity | : | MW 50μV, 300μV/m at 1,000kHz<br>LW 100μV at 200kHz |
| Selectivity | : | MW 25dB<br>LW 25dB |
| Image Rejection | : | MW 45dB<br>LW 35dB |
| IF Rejection | : | MW 40dB<br>LW 40dB |
| Signal to Noise Ratio | : | MW 55dB<br>LW 55dB |

# 2. Removal of Top Cover, Bottom Plate and Front Panel

### Procedure and Part Numbers

1. Remove 4 screws (Item No. 3) through the both sides of the cover and one screw (Item No. 2) from the back of top cover.
2. Remove the top cover.
3. Remove 4 screws (Item No. 6) from bottom plate (Item No. 5) and remove the bottom plate from the chassis.

**Removal of Top Cover and Bottom Plate**

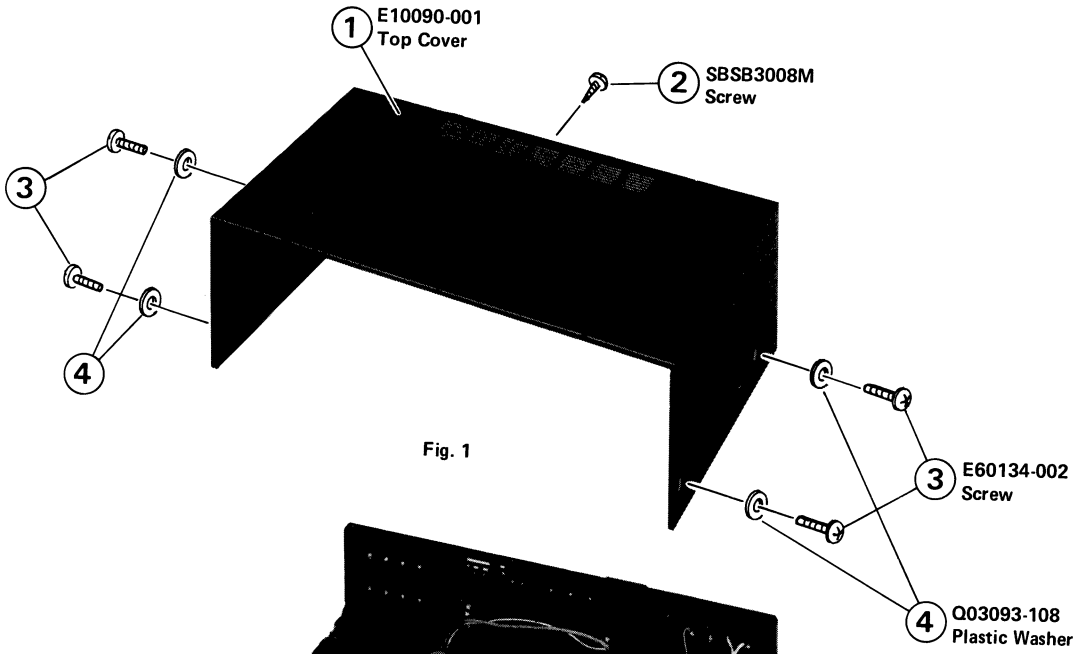



Fig. 1

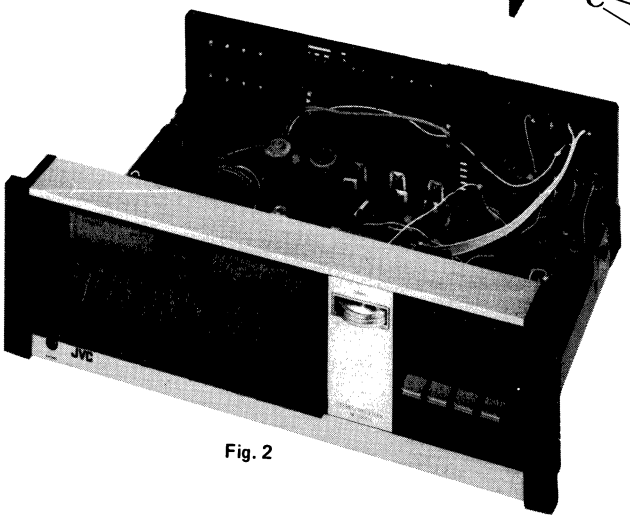


Fig. 2

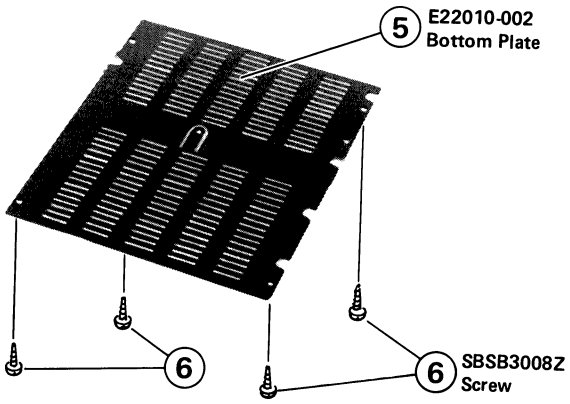



Fig. 3

## Procedure and Part Numbers

1. Remove the top cover. Refer to the removal of top cover on page 3.
2. Remove the dial pointer carefully according to the steps below:
   a. Slide the dial pointer to the center position of the dial rail.
   b. Remove the dial cord from the dial pointer. Do not pull the dial cord hard.
   c. Remove the dial pointer from the dial rail carefully.
   **Note:** Refer to Fig. 10 of the dial stringing procedure on page 8 when replace the dial pointer onto dial rail.
3. Remove 4 screws, item No. 2 located on the side fittings (Item No. 1 , left and right sides).
4. Remove the both sides of side fitting from the front panel.
5. Remove one screw, item No. 4 located on the bottom of the front panel.
6. Remove 4 screws, item No. 3 located on the both sides of front panel.
7. Pull the front panel out carefully.

**In Case of Removing the Window Screen From the Front Panel:**

Remove 4 hexagonal screws or Phillips screws, item No. 4 located on the window screen. Refer to Fig. 8 on page 6.

**Warning:** Use hexagonal wrench (size 3/32") or Phillips screwdriver and do not screw in excessively when replacing the window screen.

**Removal of Front Panel**

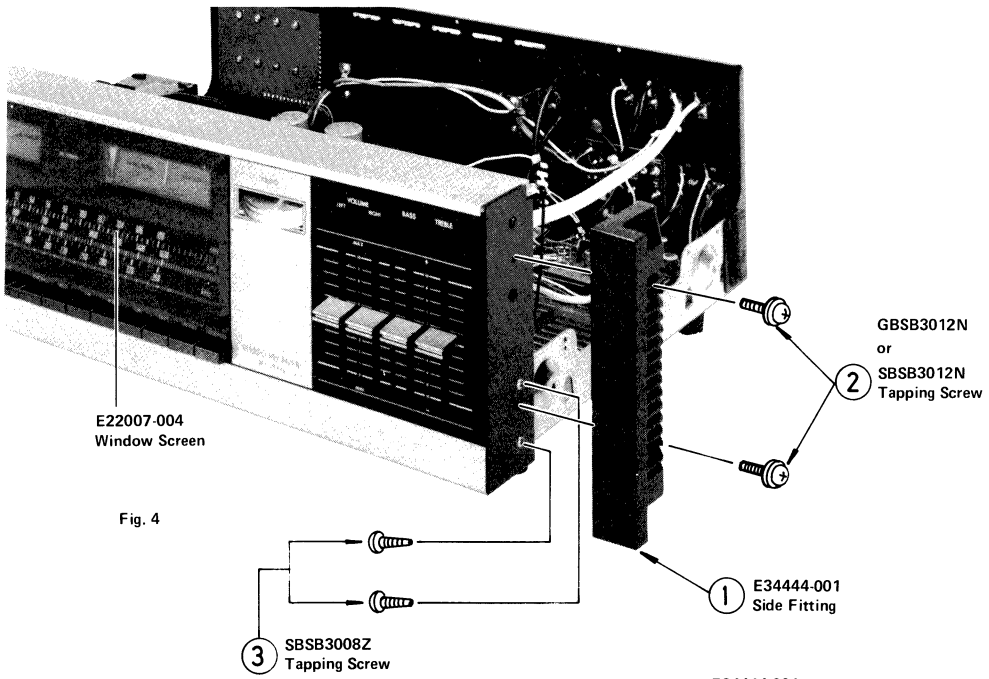



Fig. 4

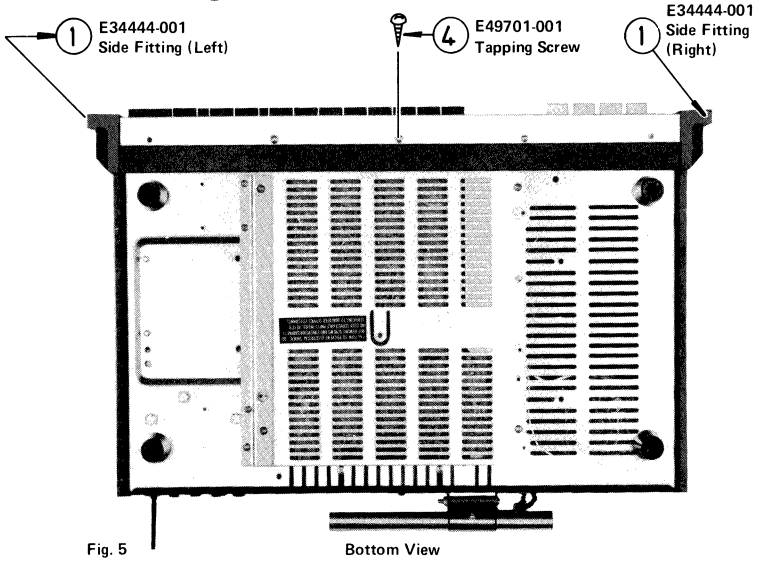



Fig. 5 Bottom View

# 3. Main Parts Location and Part Numbers

## Top View

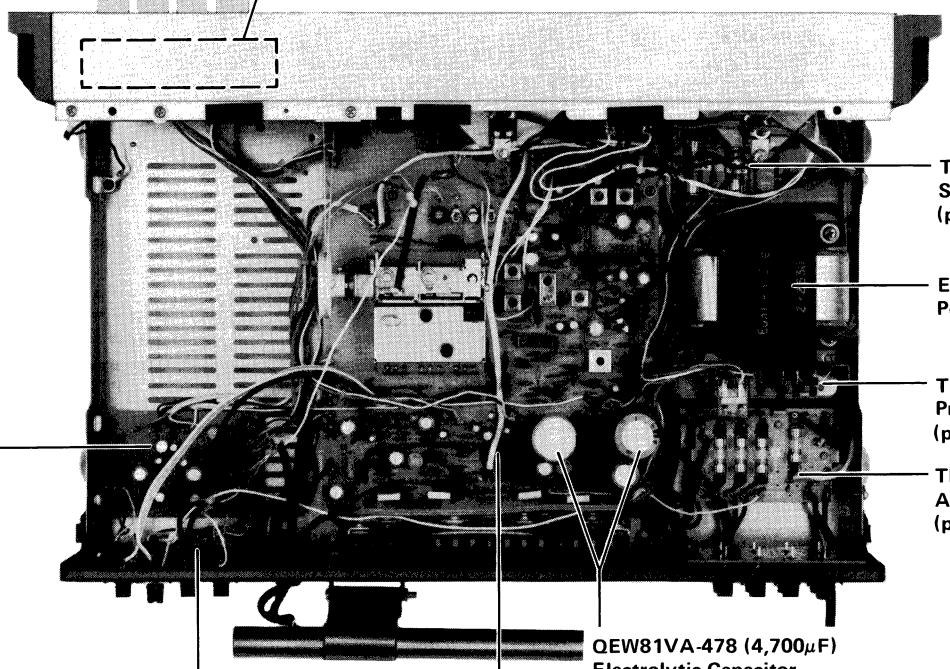



Fig. 6

## Bottom View

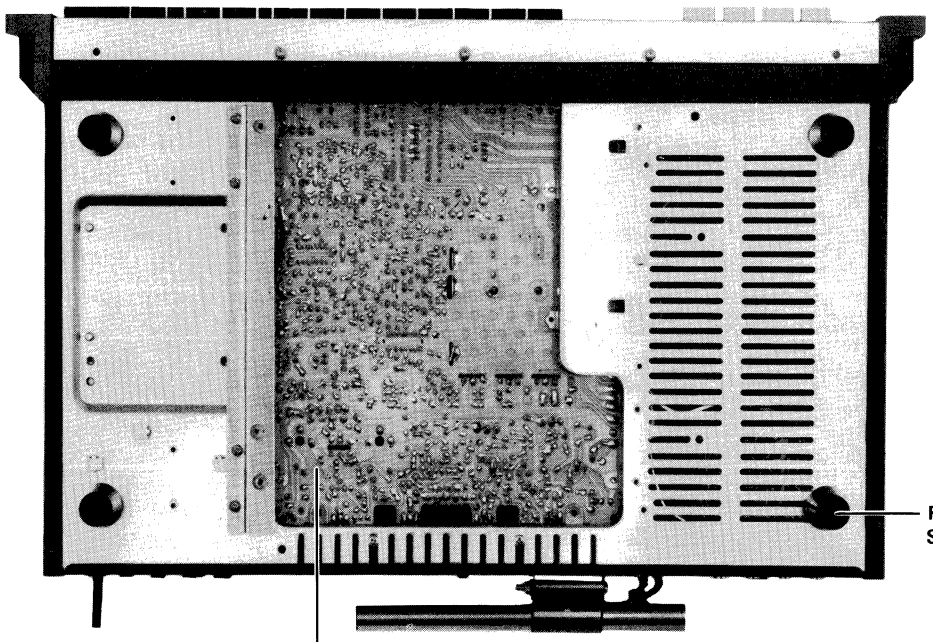



Fig. 7

# 4. Exploded View and Parts List

## 4-(1) Front Panel

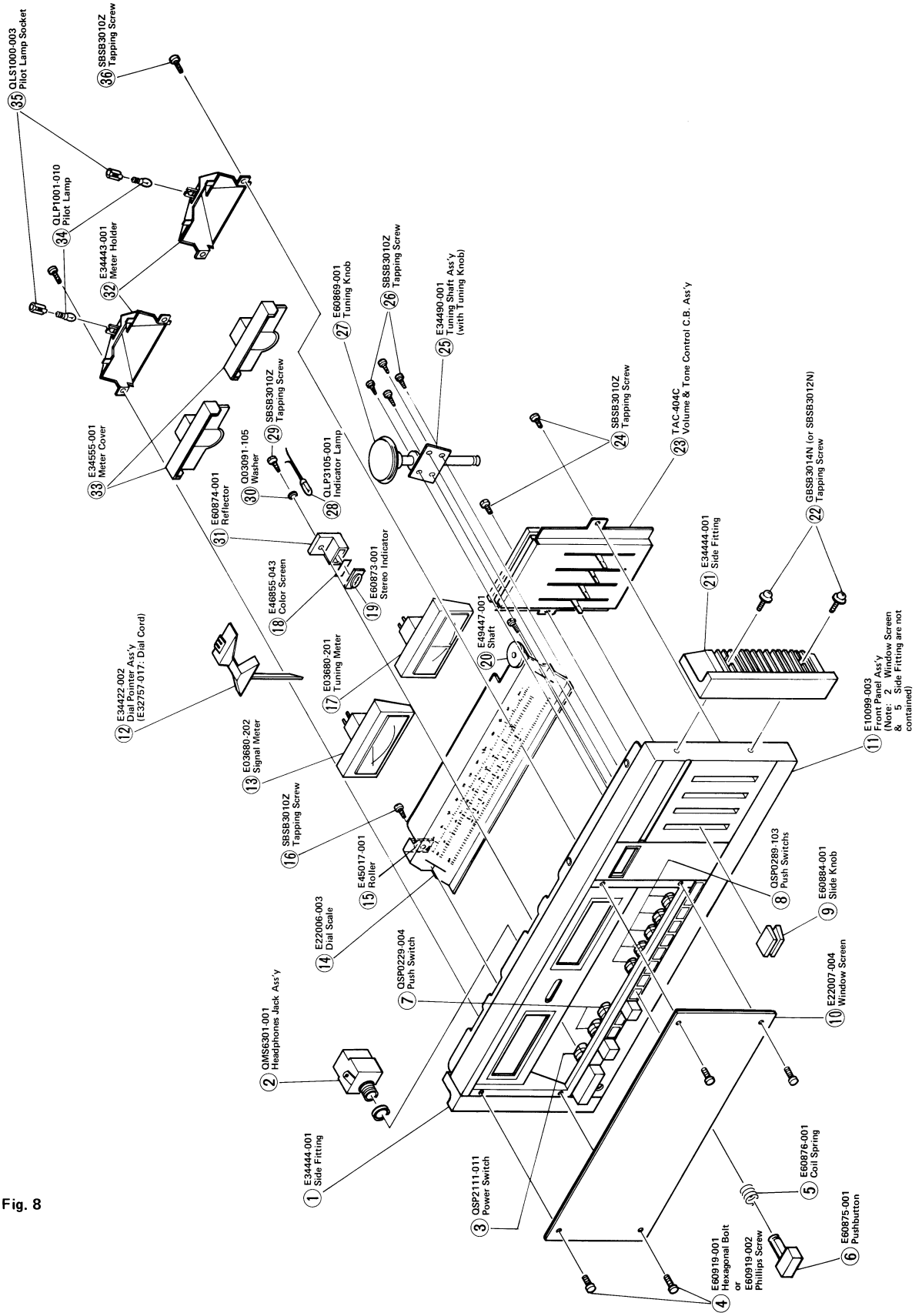

(35) QLS1000-003 Pilot Lamp Socket
(36) SBSB3010Z Tapping Screw
(34) QLP1001-010 Pilot Lamp
(32) E34443-001 Meter Holder
(33) E34555-001 Meter Cover
(31) E60874-001 Reflector
(30) O03091-105 Washer
(29) SBSB3010Z Tapping Screw
(28) QLP3105-001 Indicator Lamp
(27) E60869-001 Tuning Knob
(26) SBSB3010Z Tapping Screw
(25) E34490-001 Tuning Shaft Ass'y (with Tuning Knob)
(24) SBSB3010Z Tapping Screw
(23) TAC-404C Volume & Tone Control C.B. Ass'y
(22) GBSB3014N (or SBSB3012N) Tapping Screw
(21) E34444-001 Side Fitting
(19) E60873-001 Stereo Indicator
(18) E46855-043 Color Screen
(20) E49447-001 Shaft
(17) E03680-201 Tuning Meter
(12) E34422-002 Dial Pointer Ass'y (E32757017: Dial Cord)
(13) E03680-202 Signal Meter
(16) SBSB3010Z Tapping Screw
(15) E45017-001 Roller
(14) E22006-003 Dial Scale
(11) E10099-003 Front Panel Ass'y (Note: 2 Window Screen & 5 Side Fitting are not contained)
(8) QSP0289-103 Push Switches
(9) E60884-001 Slide Knob
(7) QSP0229-004 Push Switch
(10) E22007-004 Window Screen
(2) QMS6301-001 Headphones Jack Ass'y
(1) E34444-001 Side Fitting
(3) QSP2111-011 Power Switch
(5) E60876-001 Coil Spring
(6) E60875-001 Pushbutton
(4) E60919-001 Hexagonal Bolt or E60919-002 Phillips Screw

Fig. 8

# 4-(2) Rear Panel

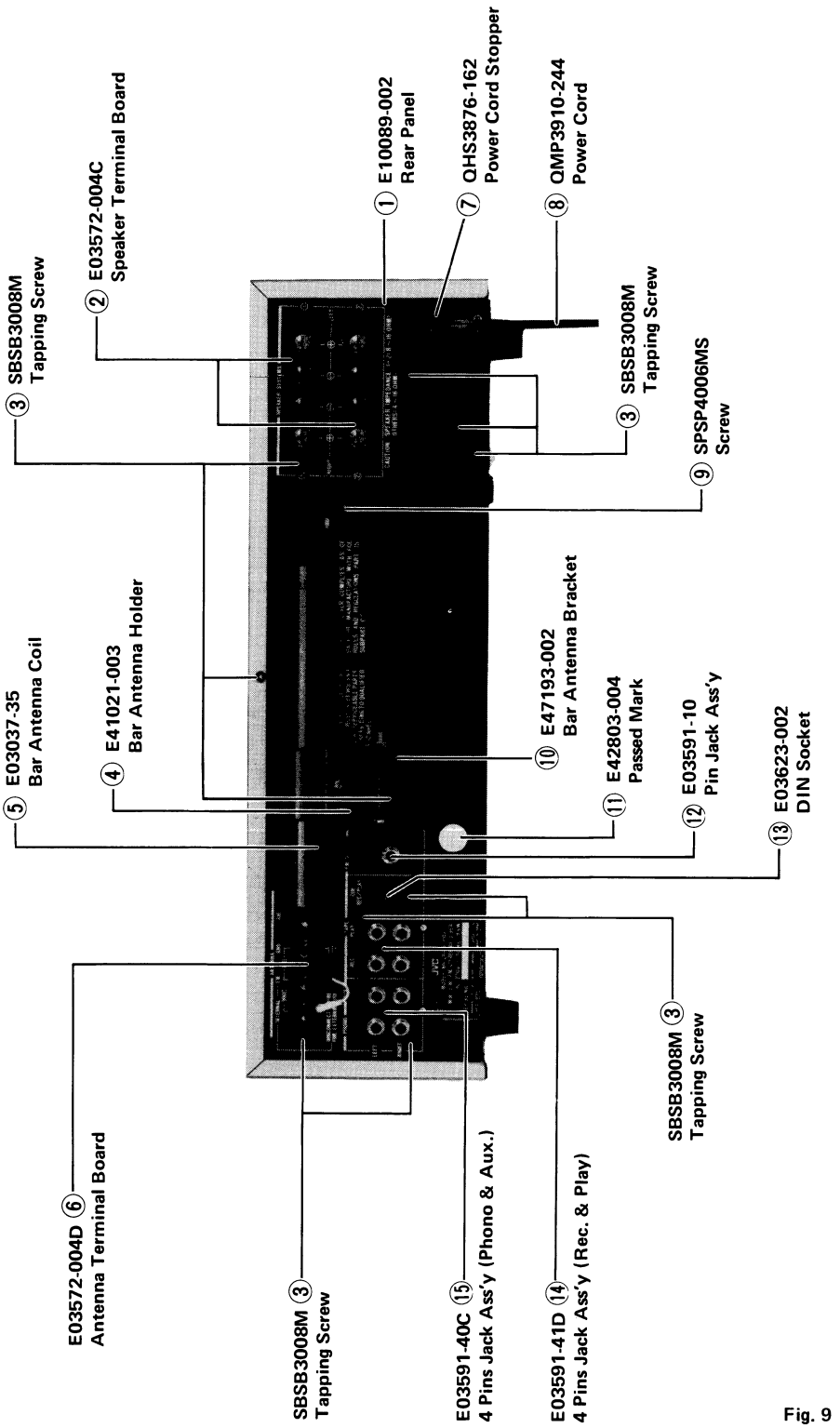



Fig. 9

# 5. Dial Stringing Procedure

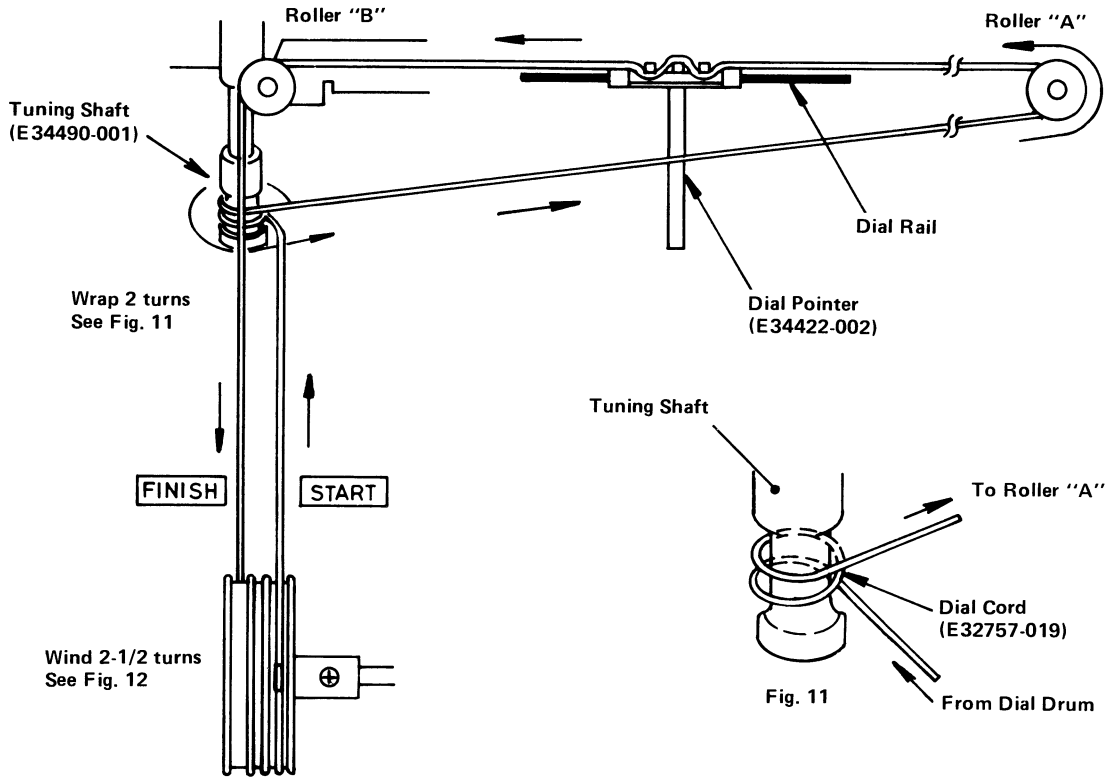



Fig. 10

Fig. 11

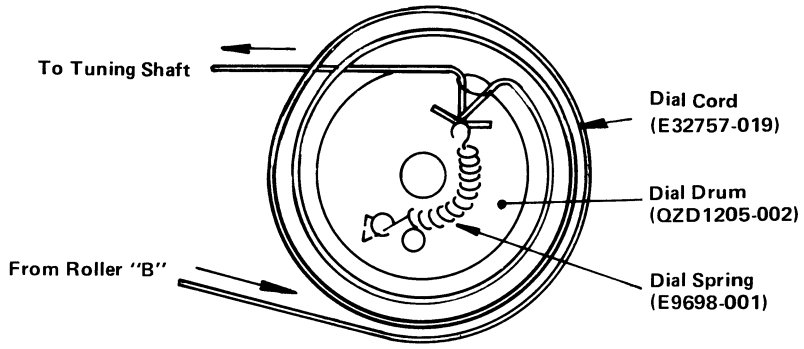
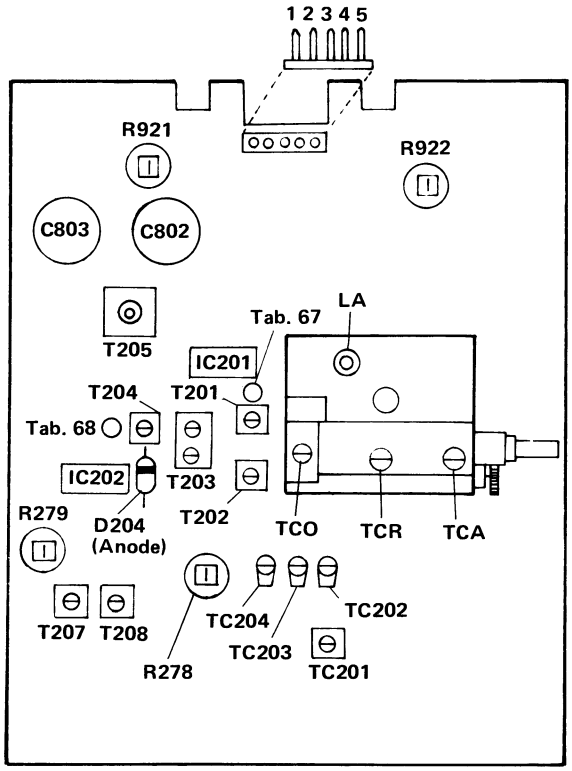



Fig. 12

(1) Remove dial pointer and old dial cord.
(2) Tie end of new dial cord to one end of dial spring, connect other end of dial spring of bottom right eye inside dial drum. See Fig. 12.
(3) Rotate the tuning capacitor dial drum to its maximum counterclockwise.
(4) Run the dial cord through the slot in the rim of the dial drum.
(5) Pull dial cord taut and wrap 2 turns counterclockwise around tuning shaft. Refer to Fig. 11.
(6) Guide the dial cord under and around rollers "A" and "B". Keep the dial cord taut during this procedure.
(7) Guide dial cord under the dial drum and wind 2-1/2 turns clockwise. See Fig. 12.
(8) Turn the tuning shaft to rotate the dial drum fully counterclockwise and fully clockwise to distribute the tensioning along the dial cord.
(9) Place the dial cord over and under the tabs on the rear of the dial pointer and place the dial pointer on the top of the dial panel rail. Refer to Fig. 10.
(10) Turn the tuning shaft clockwise. Slide the dial pointer to zero (0) calibration marker on the logging scale while holding tuning shaft fully clockwise. Cement the dial pointer to the dial cord to prevent slippage. Allow cement to dry thoroughly.
(11) Check the dial calibration. Refer to FM/AM Alignment on pages 9, through 11.
(12) Replace the top cover.

# 6. FM/MW/LW Tuner Alignment Procedures

### Alignment locations for FM/MW/LW Tuner section




TRA-17 FM/MW/LW Tuner and Audio Amp. C.B. Ass'y

Fig. 13

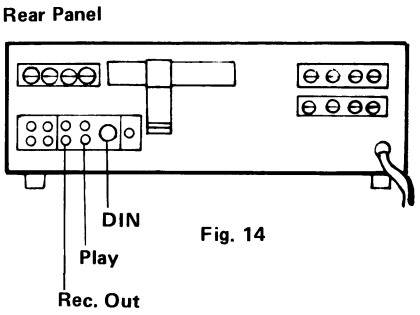



Fig. 14

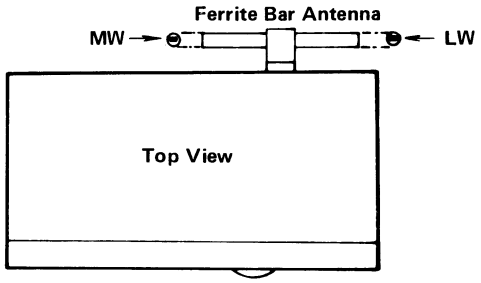



Fig. 15

## 6-(1) FM Section

### Discriminator, Center Meter and Distortion

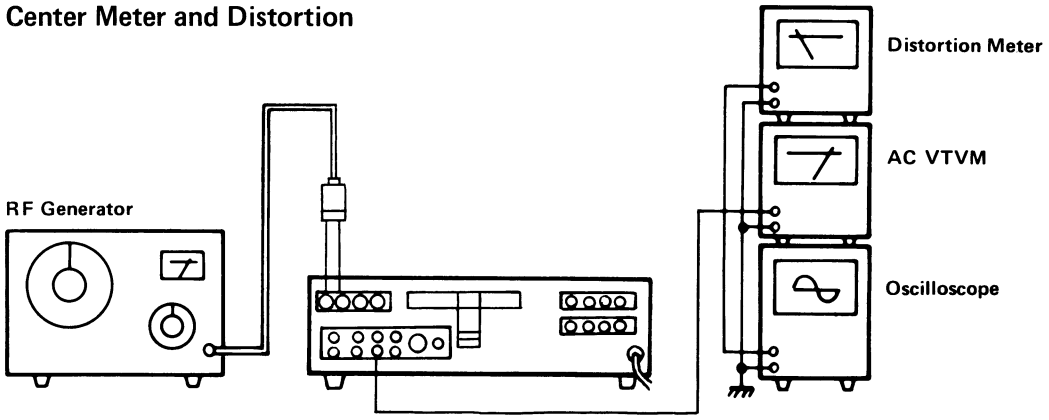



Fig. 16

1. Connect an RF generator, 1kHz modulation and 75kHz deviation to the antenna terminals on the rear panel through a dummy antenna.
2. Connect an oscilloscope, distortion meter and VTVM to the Rec. Out Jacks on the rear panel.
3. Tune to a frequency where there is no broadcasting.
4. Adjust the bottom core of T205 so that the center meter indicates "0" (zero).
5. Set the RF generator to 98MHz.
6. Set the dial pointer to 98MHz.
7. Adjust the top core of T205 so that the distortion is minimized at a value less than 0.4%.

## Tracking and Sensitivity

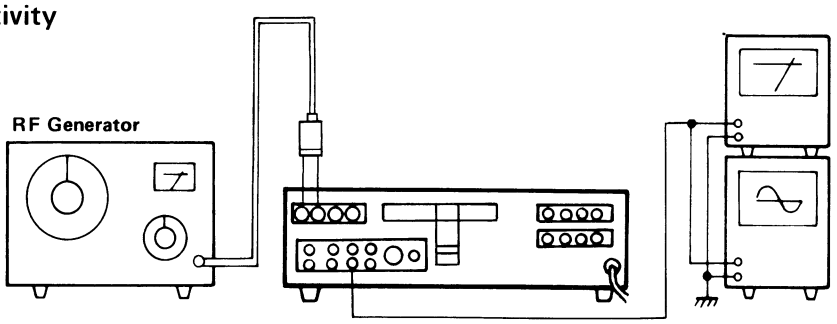



Fig. 17

**Precaution:** No adjustment is required. The tracking and sensitivity have been adjusted properly and completely at the factory. If any special reason occasioned, take the following procedures very carefully.

**Low Frequency**

1. Connect an RF generator to the antenna terminals on the rear panel through the dummy antenna.
2. Set the RF generator to 88MHz, a modulation of 1kHz and a deviation of 75kHz, to provide an input of 2$\mu$V.
3. Connect a VTVM and an oscilloscope to the Rec. Out Jacks on the rear panel.
4. Set the dial pointer to 88MHz.
5. Adjust two coils LA and LR in the tuning gang to maximize the output.

**High Frequency**

6. Set the RF generator to 108MHz, a modulation of 1kHz and a deviation of 75kHz, to provide an input of 2$\mu$V.
7. Set the dial pointer to 108MHz.
8. Adjust the FM trimmers TCO, TCR and TCA in the tuning gang to maximize the output.
9. Adjust the IF transformer LA until maximum sensitivity is obtained.

**Note:** Repeat these high and low frequency adjustments alternately until maximum sensitivity is obtained.

## Multiplex and Stereo Separation

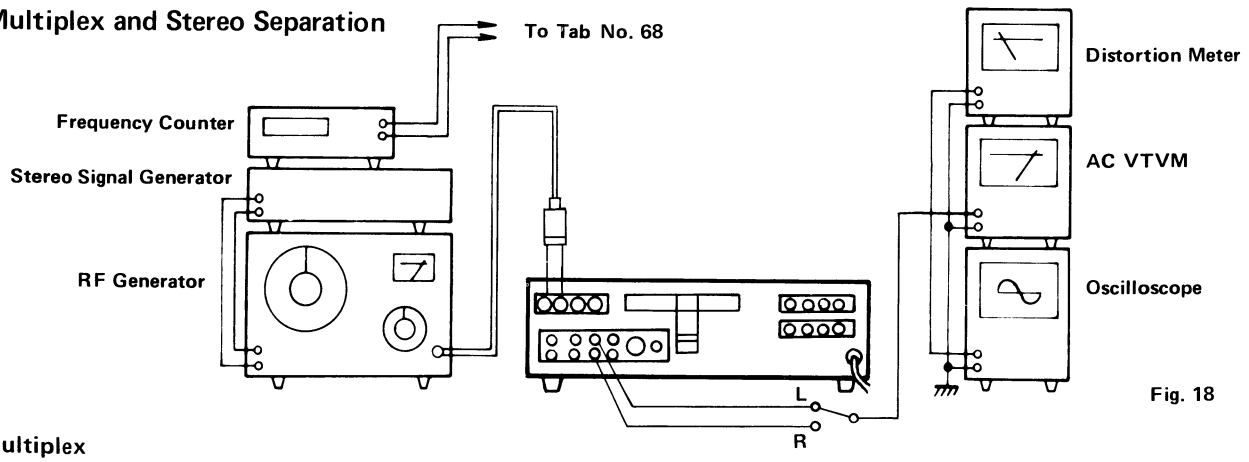



Fig. 18

**Multiplex**

1. Set a stereo signal generator as follows: Modulation frequency 1kHz, Deviation pilot signal 7.5kHz, Main and Sub. 67.5kHz. Connect its output to an RF generator.
2. Connect the RF generator to the antenna terminals through a dummy antenna.
3. Connect a VTVM, an oscilloscope and a distortion meter to the Rec. Out Jacks on the rear panel.
4. Set the RF generator to 98MHz and an output of 1mV.
5. Set the dial pointer to 98MHz.
6. Connect a frequency counter to Tab No. 68.
7. Switch off the pilot signal of the stereo modulator.
8. Adjust R279 so that the frequency counter indicates 19kHz (±0.01kHz).

**Stereo Separation**

9. Switch the selector of stereo modulator to left channel modulation.
10. Adjust R278 so that the output of right channel is minimized.
11. Switch the selector of the stereo modulator to right channel modulation.
12. Adjust R278 so that the output of left channel is minimized.
13. Set R278 to average, if the separation of right and left are different.

**Note:** Keep the "MONO" pushbutton out during this adjustment procedure of stereo separation.

# AM Section

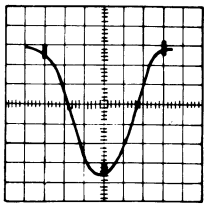

IF OUTPUT

Fig. 19

### IF Stage for MW and LW

1. Connect an output of sweep generator to the AM input Tab No. 67.
2. Set the sweep generator to 455kHz.
3. Connect an input of sweep generator to the anode lead of diode D204 (AM output).
4. Adjust the cores of I.F. Transformer T203 and T204 so that the output is maximized. Refer to Fig. 19.

# 6-(2) MW Section

### Tracking and Sensitivity

**Precaution:** Pull the bar antenna down fully before taking the following procedures listed below.

**Low Frequency**

1. Connect an RF generator to the AM antenna terminals on the rear panel, set this to 600kHz with 30% modulation at 400Hz.
2. Connect an AC VTVM and an oscilloscope to the Rec. Out Jacks on the rear panel. Refer to Fig. 17.
3. Set the dial pointer to 600kHz.
4. Adjust Osc. transformer T201 and Left ferrite bar (Right ferrite bar is for LW) to maximize the output signal. Refer to Fig. 15.

**High Frequency**

5. Set the RF generator to 1,400kHz with 30% modulation at 400Hz.
6. Set the dial pointer to 1,400kHz.
7. Adjust the trimmers TC201 and TC203 so that the output signal is maximized.
8. Repeat these high and low frequency adjustments alternately until maximum sensitivity is obtained.

# 6-(3) LW Section

### Tracking and Sensitivity

**Precaution:** Pull the bar antenna down fully before taking the following procedures listed below.

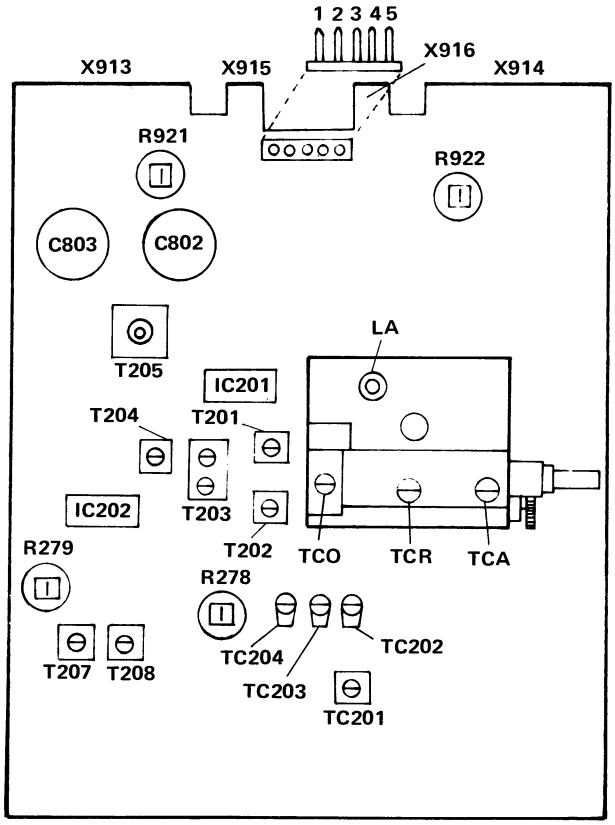
**Low Frequency**

1. Connect an RF generator to the AM antenna terminals on the rear panel, set this to 160kHz with 30% modulation at 400Hz.
2. Connect an AC VTVM and an oscilloscope to the Rec. Out Jacks on the rear panel. Refer to Fig. 17.
3. Set the dial pointer to 160kHz.
4. Adjust Osc. transformer T202 and Right ferrite bar (Left ferrite bar is for MW) to maximize the output signal. Refer to Fig. 15.

**High Frequency**

5. Set the RF generator to 350kHz with 30% modulation at 400Hz.
6. Set the dial pointer to 350kHz.
7. Adjust the trimmers TC202 and TC204 so that the output signal is maximized.
8. Repeat these high and low frequency adjustments alternately until maximum sensitivity is obtained.

# 7. Power Amplifier Adjustment Procedures




TRA-17 FM/MW/LW Tuner and Audio Amp. C.B. Ass'y

Fig. 20

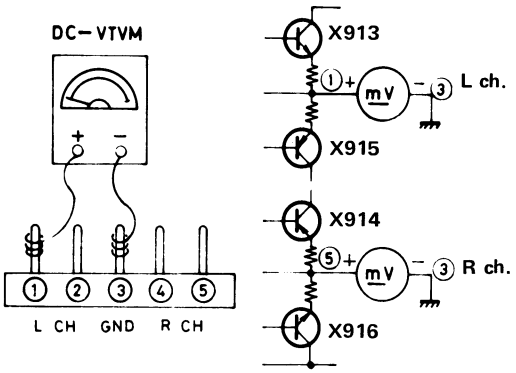



Fig. 21-A

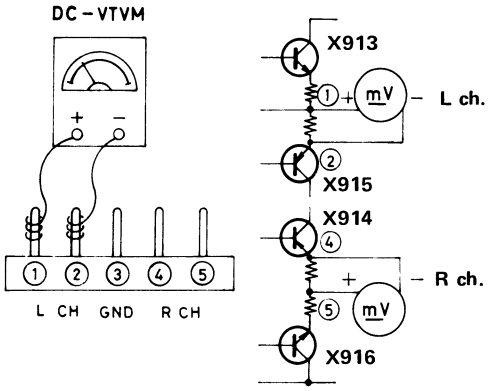



Fig. 21-B

## 7-(1) Center Voltage

( ): For right channel adjustment

**Precaution:** Allow set to warm up at least 5 minutes before connecting DC VTVM.

1. Tune volume control to minimum.
2. Connect ground lead of DC VTVM to pin 3 (pin 3) and connect probe of DC VTVM to pin 1 (pin 5). Refer to Fig. 21-A.
3. So that meter should read 0 volt (±0.05). If not, replace a pair of power transistors, then, back to step 1. to repeat this procedure.

## 7-(2) Idling Current

4. Connect ground lead of DC VTVM to pin 1 (pin 5) and connect probe of DC VTVM to pin 2 (pin 4). Refer to Fig. B.
5. Adjust pot R921 (R922) for DC VTVM reading of 10mV. Refer to Fig. 21-B.

# 8. Circuit Board Ass'y Part Locations and Parts List

## 8-(1) TRA-17 FM/MW/LW Tuner & Audio Amp. C.B. Ass'y

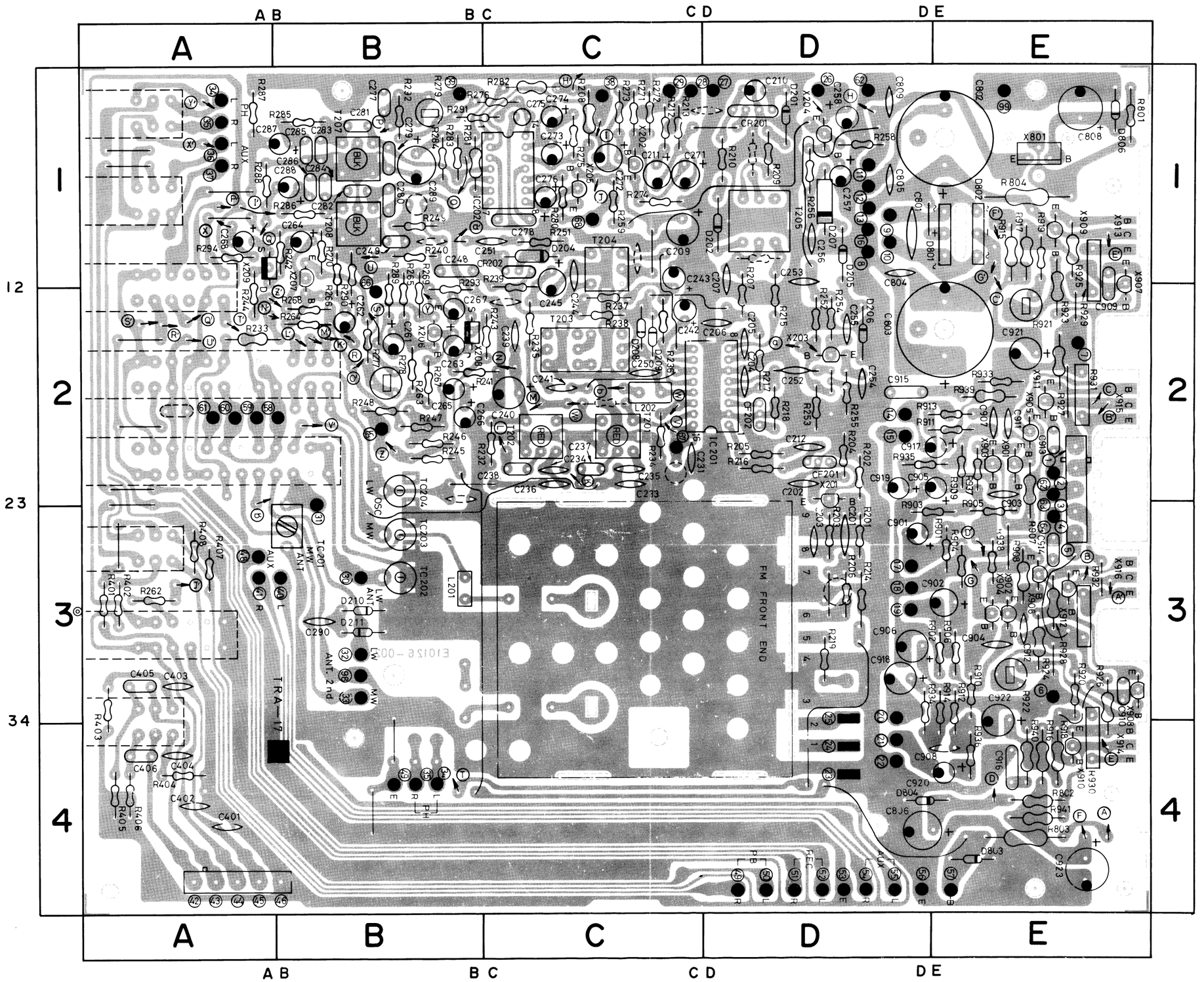



Fig. 22

# TRA-17 FM/MW/LW Tuner & Audio Amp. C.B. Ass'y

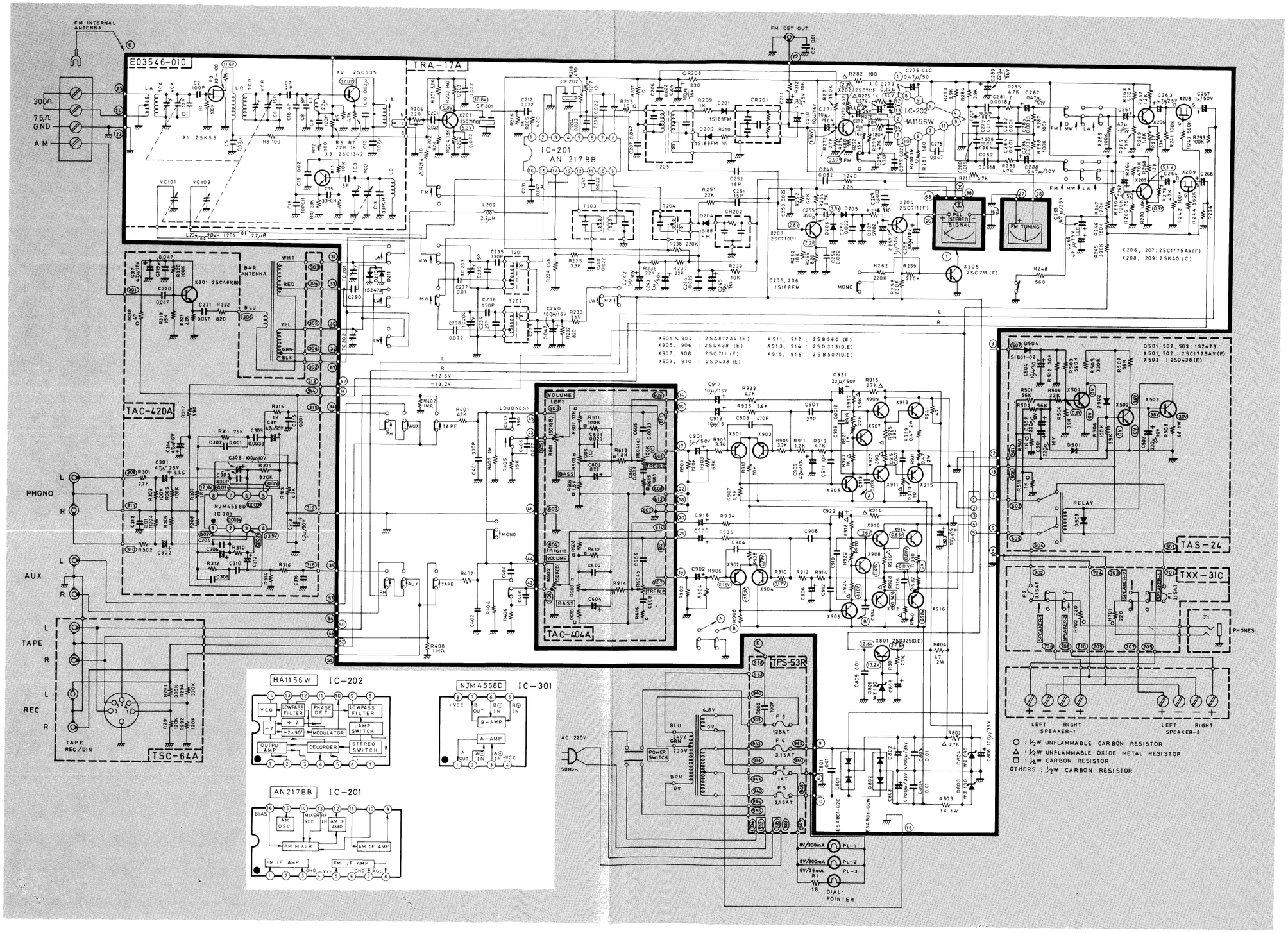



Fig. 23

## Transistors

| Item No. | Part Number | Rating | | Description | Maker | Location | |
|---|---|---|---|---|---|---|---|
| | | Pc | fT | | | H | V |
| X201 | 2SC710 (B) | 200mW | 150MHz | Silicon | Mitsubishi | 23-D | |
| X202 | 2SC711 (F) | 〃 | 〃 | 〃 | 〃 | 1-C | |
| X203 | 2SC710 (B) | 〃 | 〃 | 〃 | 〃 | 2-D | |
| X204 | 2SC711 (F) | 〃 | 〃 | 〃 | 〃 | 1-D | |
| X205 | 2SC711 (F) | 〃 | 〃 | 〃 | 〃 | 1-C | |
| X206 | 2SC1775AV (F) | 300mW | 200MHz | 〃 | Hitachi | 2-B | |
| X207 | 2SC1775AV (F) | 〃 | 〃 | 〃 | 〃 | 12-AB | |
| X208 | 2SK40C | IDSS: 3mA, NF: 5dB (f=120Hz) | | F.E.T. | 〃 | 2-BC | |
| X209 | 2SK40C | 〃 | 〃 | 〃 | 〃 | 12-AB | |
| X801 | 2SD325 (D, E) | 10W | 8MHz | Silicon | Sanyo | 1-E | |
| X901 | 2SA872AV (E) | 300mW | 200MHz | 〃 | Hitachi | 2-E | |
| X902 | 2SA872AV (E) | 〃 | 〃 | 〃 | 〃 | 3-E | |
| X903 | 2SA872AV (E) | 〃 | 〃 | 〃 | 〃 | 2-E | |
| X904 | 2SA872AV (E) | 〃 | 〃 | 〃 | 〃 | 3-E | |
| X905 | 2SD438 (E) | 750mW | 100MHz | 〃 | Sanyo | 2-E | |
| X906 | 2SD438 (E) | 〃 | 〃 | 〃 | 〃 | 3-E | |
| X907 | 2SC711 (F) | 200mW | 150MHz | 〃 | Mitsubishi | 12-E | |
| X908 | 2SC711 (F) | 〃 | 〃 | 〃 | 〃 | 34-E | |
| X909 | 2SD438 (E) | 750mW | 100MHz | 〃 | Sanyo | 1-E | |
| X910 | 2SD438 (E) | 〃 | 〃 | 〃 | 〃 | 34-E | |
| X911 | 2SB560 (E) | 〃 | 〃 | 〃 | 〃 | 2-E | |
| X912 | 2SB560 (E) | 〃 | 〃 | 〃 | 〃 | 3-E | |
| X913 | 2SD313V (D, E) | 30W | 8MHz | 〃 | 〃 | 1-E | |
| X914 | 2SD313V (D, E) | 〃 | 〃 | 〃 | 〃 | 34-E | |
| X915 | 2SB507V (D, E) | 〃 | 〃 | 〃 | 〃 | 2-E | |
| X916 | 2SB507V (D, E) PT-117 | 〃 | 〃 | 〃 A Pair of Power Transistors | 〃 | 3-E | |

## Integrated Circuits

| Item No. | Part Number | Rating | Description | Maker | Location | |
|---|---|---|---|---|---|---|
| | | | | | H | V |
| IC201 | AN217BB | 200mW | I.C. | Matsushita | 2-CD | |
| IC202 | HA1156W | 400mW | 〃 | Hitachi | 1-BC | |

## Filters

| Item No. | Part Number | Rating | Description | Maker | Location | |
|---|---|---|---|---|---|---|
| | | | | | H | V |
| CF201 | E03357-001 | | Ceramic Filter | | 2-D | |
| CF202 | E03357-001 | | 〃 | | 23-D | |
| CR201 | E0752-11 | | C.R. Block Filter | | 1-D | |
| CR202 | E0752-9 | | 〃 | | 12-BC | |

## Diodes

| Item No. | Part Number | Rating | Description | Maker | Location H | Location V |
|---|---|---|---|---|---|---|
| D201 | 1S188FM | | Germanium | Sanyo | 1-D | |
| D202 | 1S188FM | | " | " | 1-CD | |
| D204 | 1S188FM | | " | " | 12-BC | |
| D205 | 1S188FM | | " | " | 12-D | |
| D206 | 1S188FM | | " | " | 12-D | |
| D207 | SV02 | | Varistor | Sanken | 1-D | |
| D801 | ESAB02-02C | | Zener | Kyodo-Denki | 1-DE | |
| D802 | ESAB02-02N | | " | " | 1-E | |
| D803 | WZ-130 | | " | Fuji | 4-DE | |
| D804 | WZ-090A | | " | " | 4-DE | |
| D806 | WZ-130 | | Zener | Fuji | 1-E | |

## Coils

| Item No. | Part Number | Rating | Description | Location H | Location V |
|---|---|---|---|---|---|
| L201 | E03522-2R2KY | | Choke Coil | 3-BC | |
| L202 | E03522-2R2KY | | " | 2-C | |
| L204 | E03695-001 | | " | See Front End | |
| T201 | E03079-27 | | Osc Coil | 2-C | |
| T202 | E03079-18 | | " | 2-C | |
| T203 | E03062-34M | | I.F. Transformer | 2-C | |
| T204 | E03062-6 | | AM I.F. Transformer | 12-C | |
| T205 | E03134-018 | | FM Detector | 1-D | |
| T207 | E03407-005 | | MPX Coil | 1-B | |
| T208 | E03407-005 | | " | 1-B | |

## Capacitors

| Item No. | Part Number | Rating | | Description | Location H | Location V |
|---|---|---|---|---|---|---|
| ALPS | E03546-010 | | | Front-End (FM Tuner) | 3-C | |
| C201 | QCF11HP-223 | 0.022μF | 50V | Ceramic | 23-D | |
| C202 | QCF31HP-223 | " | " | " | 23-D | |
| C203 | QCF31HP-223 | " | " | " | 23-D | |
| C204 | QCF31HP-223 | " | " | " | 2-D | |
| C205 | QCF31HP-223 | " | " | " | 2-D | |
| C206 | QCF31HP-223 | " | " | " | 12-CD | |
| C207 | QCF31HP-473 | 0.047μF | " | " | 12-CD | |
| C209 | QEW51CA-107 | 100μF | 16V | Electrolytic | 1-CD | |
| C210 | QEW51CA-106 | 10μF | " | " | 1-D | |
| C211 | QEW51EA-475 | 4.7μF | 25V | " | 1-C | |
| C212 | QCF31HP-223 | 0.022μF | 50V | Ceramic | 2-D | |
| C231 | QCZ0107-473 | 0.047μF | 25V | " | 2-CD | |
| C233 | QCS31HJ-5R0 | 5pF | 50V | " | 23-C | |
| C234 | QCS31HJ-270 | 27pF | " | " | 23-C | |
| C235 | QCS31HJ-331 | 330pF | " | " | 23-C | |
| C236 | QCS31HJ-151 | 150pF | " | " | 23-C | |
| C237 | QFZ0021-103 | 0.01μF | " | Mylar | 2-C | |
| C238 | QFZ0021-223 | 0.022μF | " | " | 23-BC | |
| C239 | QCF31HP-473 | 0.047μF | " | Ceramic | 2-BC | |
| C240 | QEW51CA-107 | 100μF | 16V | Electrolytic | 2-BC | |
| C241 | QCF31HP-223 | 0.022μF | 50V | Ceramic | 2-C | |
| C242 | QEW51HA-105 | 1μF | " | Electrolytic | 12-CD | |
| C243 | QEW51HA-105 | " | " | " | 12-C | |
| C244 | QCF31HP-223 | 0.022μF | " | Ceramic | 12-C | |

## Capacitors

| Item No. | Part Number | Rating | | Description | Location | |
|---|---|---|---|---|---|---|
| | | | | | H | V |
| C245 | QEW51CA-106 | 10μF | 16V | Electrolytic | 12-C | |
| C248 | QFZ0021-823 | 0.082μF | 50V | Mylar | 12-BC | |
| C249 | QFZ0021-332 | 3300pF | " | " | 1-B | |
| C251 | QCS31HJ-150 | 15pF | " | Ceramic | 1-BC | |
| C252 | QCS11HJ-180 | 18pF | " | " | 2-D | |
| C253 | QCF31HP-223 | 0.022μF | " | " | 12-D | |
| C254 | QCF31HP-223 | " | " | " | 2-D | |
| C255 | QCS31HJ-391 | 390pF | " | " | 12-D | |
| C256 | QCF31HP-223 | 0.022μF | " | " | 1-D | |
| C257 | QEW51HA-105 | 1μF | " | Electrolytic | 1-D | |
| C258 | QEW51AA-107 | 100μF | 10V | " | 1-D | |
| C261 | QEW51EA-475 | 4.7μF | 25V | " | 2-B | |
| C262 | QEW51EA-475 | " | " | " | 12-B | |
| C263 | QEW51EA-475 | " | " | " | 2-BC | |
| C264 | QEW51EA-475 | " | " | " | 1-AB | |
| C265 | QEB51EM-475 | 4.7μF | " | L.L.C. Electrolytic | 2-B | |
| C266 | QEB51EM-475 | " | " | " | 2-BC | |
| C267 | QEW51HA-105 | 1μF | 50V | Electrolytic | 12-BC | |
| C268 | QEW51HA-105 | " | " | " | 1-A | |
| C271 | QEW51CA-106 | 10μF | 16V | " | 1-CD | |
| C272 | QEW51CA-106 | " | " | " | 1-C | |
| C273 | QEB51HM-224 | 0.22μF | 50V | L.L.C. Electrolytic | 1-C | |
| C274 | QEB51EM-106 | 10μF | 25V | Electrolytic | 1-C | |
| C275 | QFS42BJ-471 | 470pF | 50V | Ceramic | 1-C | |
| C276 | QEB51HM-474 | 4.7μF | " | L.L.C. Electrolytic | 1-C | |
| C277 | QFZ0021-223 | 0.022μF | " | Mylar | 1-B | |
| C278 | QFZ0021-473 | 0.047μF | " | " | 1-BC | |
| C279 | QFZ0021-153 | 0.015μF | " | " | 1-B | |
| C280 | QFZ0021-153 | " | " | " | 1-B | |
| C281 | QFZ0021-182 | 1800pF | 50V | Mylar | 1-B | |
| C282 | QFZ0021-182 | " | " | " | 1-B | |
| C283 | QFZ0021-102 | 1000pF | " | " | 1-B | |
| C284 | QFZ0021-102 | " | " | " | 1-B | |
| C285 | QFZ0021-332 | 3300pF | " | " | 1-B | |
| C286 | QFZ0021-332 | " | " | " | 1-B | |
| C287 | QEW51HA-475 | 4.7μF | " | Electrolytic | 1-AB | |
| C288 | QEW51HA-475 | " | " | " | 1-AB | |
| C289 | QEW51CA-227 | 220μF | 16V | " | 1-B | |
| C401 | QCS31HJ-331 | 330pF | 50V | Ceramic | 4-A | |
| C402 | QCS31HJ-331 | " | " | " | 4-A | |
| C403 | QCS31HJ-331 | " | " | " | 3-A | |
| C404 | QCS31HJ-331 | " | " | " | 4-A | |
| C405 | QFZ0021-273 | 0.027μF | " | Mylar | 3-A | |
| C406 | QFZ0021-273 | " | " | " | 4-A | |
| C801 | QEW81VA-478 | 4700μF | 35V | Electrolytic | 1-DE | |
| C802 | QCF32HP-103 | 0.01μF | 50V | Ceramic | 1-DE | |
| C803 | QEW81VA-478 | 4700μF | 35V | Electrolytic | 12-DE | |
| C804 | QCF31HP-103 | 0.01μF | 50V | Ceramic | 12-DE | |
| C805 | QCF31HP-103 | " | " | " | 1-DE | |
| C806 | QEW51VA-107 | 100μF | 35V | Electrolytic | 4-DE | |
| C808 | QEW51CA-227 | 220μF | 16V | " | 1-E | |
| C809 | QCF31HP-103 | 0.01μF | 50V | Ceramic | 1-DE | |
| C901 | QEW51HA-105 | 1μF | " | Electrolytic | 23-DE | |
| C902 | QEW51HA-105 | " | " | " | 3-DE | |
| C903 | QCS31HJ-471 | 470pF | " | Ceramic | 23-E | |
| C904 | QCS31HJ-471 | " | " | " | 3-E | |

## Capacitors

| Item No. | Part Number | Rating | | Description | Location | |
|---|---|---|---|---|---|---|
| | | | | | H | V |
| C905 | QEW51AA-476 | 47μF | 10V | Electrolytic | 23-DE | |
| C906 | QEW51AA-476 | " | " | " | 3-DE | |
| C907 | QCS31HJ-270 | 27pF | 50V | Ceramic | 2-E | |
| C908 | QCS31HJ-270 | " | " | " | 34-DE | |
| C909 | QFZ0021-122 | 1200pF | " | Mylar | 12-E | |
| C910 | QFZ0021-122 | " | " | " | 34-E | |
| C911 | QCS31HJ-180 | 18pF | " | Ceramic | 2-E | |
| C912 | QCS31HJ-180 | " | " | " | 3-E | |
| C913 | QFZ0021-333 | 0.033μF | " | Mylar | 2-E | |
| C914 | QFZ0021-333 | " | " | " | 23-E | |
| C915 | QFZ0021-473 | 0.047μF | " | " | 2-DE | |
| C916 | QFZ0021-473 | " | " | " | 4-E | |
| C917 | QEW51CA-106 | 10μF | 16V | Electrolytic | 2-DE | |
| C918 | QEW51CA-106 | " | " | " | 3-DE | |
| C919 | QEW51CA-106 | " | " | " | 23-DE | |
| C920 | QEW51CA-106 | " | " | " | 4-DE | |
| C921 | QEW51HA-226 | 22μF | 50V | " | 2-E | |
| C922 | QEW51HA-226 | " | " | " | 34-E | |
| C923 | QEW51VA-107 | 100μF | 35V | " | 4-E | |
| TC201 | QAT2001-001 | | | Trimmer | 23-AB | |
| TC202 | QAT3001-006 | | | " | 3-B | |
| TC203 | QAT3001-005 | | | " | 23-B | |
| TC204 | QAT3001-006 | | | " | 23-B | |

## Resistors

| Item No. | Part Number | Rating | | Description | Location | |
|---|---|---|---|---|---|---|
| | | | | | H | V |
| R201 | QRD181J-822 | 8.2kΩ | 1/8W | Carbon | 23-D | |
| R202 | QRD181J-822 | " | " | " | 23-D | |
| R203 | QRD181J-561 | 560Ω | " | " | 23-D | |
| R2041 | QRD181J-182 | 1.8kΩ | " | " | 2-D | |
| R205 | QRD181J-681 | 680Ω | " | " | 2-D | |
| R206 | QRD181J-221 | 220Ω | " | " | 3-D | |
| R207 | QRD181J-100 | 10Ω | " | " | 12-D | |
| R208 | QRD126J-331 | 330Ω | 1/2W | Uninflammable Carbon | 1-C | |
| R209 | QRD181J-102 | 1kΩ | 1/8W | Carbon | 1-D | |
| R210 | QRD181J-102 | " | " | " | 1-CD | |
| R212 | QRD181J-103 | 10kΩ | " | " | 1-C | |
| R213 | QRD181J-472 | 4.7kΩ | " | " | 1-CD | |
| R214 | QRX129J-100 | 10Ω | 1/2W | Uninflammable M.F. | 3-D | |
| R215 | QRD181J-100 | " | 1/8W | Carbon | 12-D | |
| R216 | QRD181J-102 | 1kΩ | " | " | 2-D | |
| R217 | QRX129J-100 | 10Ω | 1/2W | Uninflammable M.F. | 2-D | |
| R218 | QRD181J-471 | 470Ω | " | " | 2-D | |
| R219 | QRD181J-105 | 1MΩ | 1/8W | Carbon | 3-D | |
| R232 | QRD181J-821 | 820Ω | 1/2W | Uninflammable M.F. | 2-BC | |
| R233 | QRD126J-561 | 560Ω | " | Uninflammable Carbon | 2-A | |
| R234 | QRD181J-152 | 1.5kΩ | 1/8W | Carbon | 2-C | |
| R235 | QRD181J-332 | 3.3kΩ | " | " | 2-C | |
| R236 | QRD181J-223 | 22kΩ | " | " | 2-C | |
| R237 | QRD181J-223 | " | " | " | 2-C | |
| R238 | QRD181J-224 | 220kΩ | " | " | 12-C | |
| R239 | QRD181J-103 | 10kΩ | " | " | 12-BC | |
| R240 | QRD181J-223 | 22kΩ | " | " | 1-B | |
| R241 | QRD181J-104 | 100kΩ | " | " | 2-BC | |
| R242 | QRD181J-104 | " | " | " | 1-AB | |
| R243 | QRD181J-564 | 560kΩ | " | " | 2-BC | |

## Resistors

| Item No. | Part Number | Rating | | Description | Location H | Location V |
|---|---|---|---|---|---|---|
| R244 | QRD181J-564 | 560kΩ | 1/8W | Carbon | 12 | AB |
| R245 | QRD181J-394 | 390kΩ | " | " | 2 | B |
| R246 | QRD181J-184 | 180kΩ | " | " | 2 | B |
| R247 | QRD181J-124 | 120kΩ | " | " | 2 | B |
| R248 | QRD181J-561 | 560Ω | " | " | 2 | B |
| R251 | QRD181J-223 | 22kΩ | " | " | 1 | C |
| R252 | QRD181J-683 | 68kΩ | " | " | 12 | D |
| R253 | QRD181J-183 | 18kΩ | " | " | 2 | D |
| R254 | QRD181J-272 | 2.7kΩ | " | " | 12 | D |
| R255 | QRD181J-821 | 820Ω | " | " | 2 | D |
| R256 | QRD181J-331 | 330Ω | " | " | 1 | D |
| R258 | QRD181J-224 | 220kΩ | " | " | 1 | D |
| R259 | QRD181J-224 | " | " | " | 1 | C |
| R262 | QRD181J-224 | " | " | " | 3 | A |
| R263 | QRD181J-474 | 470kΩ | " | " | 2 | B |
| R264 | QRD181J-474 | " | " | " | 2 | AB |
| R265 | QRD181J-753 | 75kΩ | " | " | 12 | B |
| R266 | QRD181J-753 | " | " | " | 12 | B |
| R267 | QRD181J-123 | 12kΩ | " | " | 2 | B |
| R268 | QRD181J-123 | " | " | " | 12 | AB |
| R269 | QRD181J-182 | 1.8kΩ | " | " | 12 | B |
| R270 | QRD181J-182 | " | " | " | 1 | B |
| R271 | QRD181J-154 | 150kΩ | " | " | 1 | C |
| R272 | QRD181J-273 | 27kΩ | " | " | 1 | C |
| R273 | QRD181J-472 | 4.7kΩ | " | " | 1 | C |
| R274 | QRD181J-681 | 680Ω | 1/8W | Carbon | 1 | C |
| R275 | QRD181J-102 | 1kΩ | " | " | 1 | C |
| R276 | QRD181J-183 | 18kΩ | " | " | 1 | BC |
| R277 | QRD181J-154 | 150kΩ | " | " | 2 | B |
| R278 | QVP4A0B-104 | 100kΩ | | Variable | 2 | B |
| R279 | QVP4A0B-472 | 4.7kΩ | | " | 1 | B |
| R280 | QRD141J-105 | 1MΩ | 1/4W | Carbon | 1 | C |
| R281 | QRD126J-181 | 180Ω | 1/2W | Uninflammable Carbon | 1 | BC |
| R282 | QRG129J-101 | 100Ω | " | Uninflammable O.M. | 1 | C |
| R283 | QRD181J-392 | 3.9kΩ | 1/8W | Carbon | 1 | B |
| R284 | QRD181J-392 | " | " | " | 1 | B |
| R285 | QRD181J-472 | 4.7kΩ | " | " | 1 | B |
| R286 | QRD181J-472 | " | " | " | 1 | B |
| R287 | QRD181J-104 | 100kΩ | " | " | 1 | A |
| R288 | QRD181J-104 | " | " | " | 1 | A |
| R289 | QRD181J-104 | " | " | " | 12 | B |
| R290 | QRD181J-104 | " | " | " | 12 | B |
| R291 | QRD181J-184 | 180kΩ | " | " | 1 | BC |
| R292 | QRD181J-153 | 15kΩ | " | " | 1 | B |
| R293 | QRD181J-104 | 100kΩ | " | " | 12 | BC |
| R294 | QRD181J-104 | " | " | " | 1 | A |
| R401 | QRD181J-472 | 4.7kΩ | " | " | 3 | A |
| R402 | QRD181J-472 | " | " | " | 3 | A |
| R403 | QRD181J-105 | 1MΩ | " | " | 34 | A |
| R404 | QRD181J-105 | " | " | " | 4 | A |
| R405 | QRD181J-153 | 15kΩ | " | " | 4 | A |
| R406 | QRD181J-153 | " | " | " | 4 | A |
| R407 | QRD181J-105 | 1MΩ | " | " | 3 | A |
| R408 | QRD181J-105 | " | " | " | 3 | A |
| R801 | QRD141J-272 | 2.7kΩ | 1/4W | " | 1 | E |
| R802 | QRG129J-272 | " | 1/2W | Uninflammable O.M. | 4 | E |
| R803 | QRG017J-102 | 1kΩ | 1W | Oxide Film | 4 | E |
| R804 | QRG027J-470 | 47Ω | 2W | Uninflammable O.M. | 1 | E |
| R901 | QRD181J-224 | 220kΩ | 1/8W | Carbon | 23 | DE |

## Resistors

| Item No. | Part Number | Rating | | Description | Location | |
|---|---|---|---|---|---|---|
| | | | | | H | V |
| R902 | QRD181J-224 | 220kΩ | 1/8W | Carbon | 3-DE | |
| R903 | QRD181J-683 | 68kΩ | " | " | 23-DE | |
| R904 | QRD181J-683 | " | " | " | 3-E | |
| R905 | QRD181J-332 | 3.3kΩ | " | " | 23-E | |
| R906 | QRD181J-332 | " | " | " | 3-DE | |
| R907 | QRG129J-152 | 1.5kΩ | 1/2W | Uninflammable O.M. | 23-E | |
| R908 | QRG129J-152 | " | " | " | 3-E | |
| R909 | QRD181J-332 | 3.3kΩ | 1/8W | Carbon | 23-DE | |
| R910 | QRD181J-332 | " | " | " | 34-E | |
| R911 | QRD181J-122 | 1.2kΩ | " | " | 2-DE | |
| R912 | QRD181J-122 | " | " | " | 34-DE | |
| R913 | QRD181J-473 | 47kΩ | " | " | 2-DE | |
| R914 | QRD181J-473 | " | " | " | 34-DE | |
| R915 | QRG129J-272 | 2.7kΩ | 1/2W | Uninflammable O.M. | 12-E | |
| R916 | QRG129J-272 | " | " | " | 4-E | |
| R917 | QRG129J-392 | 3.9kΩ | " | Oxide Metal | 12-E | |
| R918 | QRG129J-392 | " | " | " | 4-E | |
| R919 | QRD181J-222 | 2.2kΩ | 1/8W | Carbon | 12-E | |
| R920 | QRD181J-222 | " | " | " | 34-E | |
| R921 | QVP4A0B-102 | 1kΩ | | Variable | 12-E | |
| R922 | QVP4A0B-102 | " | | " | 3-E | |
| R923 | QRG129J-102 | " | 1/2W | Uninflammable O.M. | 12-E | |
| R924 | QRG129J-102 | 1kΩ | 1/2W | Uninflammable O.M. | 3-E | |
| R925 | QRG129J-391 | 390Ω | " | Uninflammable Carbon | 12-E | |
| R926 | QRG129J-391 | " | " | " | 34-E | |
| R927 | QRG129J-391 | " | " | " | 2-E | |
| R928 | QRG129J-391 | " | " | " | 3-E | |
| R929 | QRM024K-R47 | 0.47Ω | 2W | Metalized Plate | 12-E | |
| R930 | QRM024K-R47 | 0 " | " | " | 34-E | |
| R931 | QRM024K-R47 | " | " | " | 2-E | |
| R932 | QRM024K-R47 | " | " | " | 3-E | |
| R933 | QRD181J-472 | 4.7kΩ | 1/8W | Carbon | 2-E | |
| R934 | QRD181J-472 | " | " | " | 34-DE | |
| R935 | QRD181J-562 | 5.6kΩ | " | " | 2-DE | |
| R936 | QRD181J-562 | " | " | " | 4-E | |
| R937 | QRD181J-103 | 10kΩ | " | " | 23-E | |
| R938 | QRD181J-103 | " | " | " | 3-E | |
| R939 | QRX129J-100 | 10Ω | 1/2W | Uninflammable M.F. | 2-E | |
| R940 | QRX129J-100 | " | " | " | 4-E | |
| R941 | QRG129J-470 | 47Ω | " | Uninflammable O.M. | 4-E | |

## Others

| Item No. | Part Number | Rating | Description |
|---|---|---|---|
| | E34083-002 | | Heat Sink |
| | E61273-001 | | Heat Sink for 2SD325 |
| | QSP0019-001 | | Push Switch (Source Selector, Mode Switch, Tape Monitor and Loudness Switch) |
| | E03628-5UD | | 5 Pins Plug |
| | E41541-21 | | Bushing |
| | IS-313A | | Insulator for Power Transistor |

# 8-(2) TAS-24 Protector C.B. Ass'y

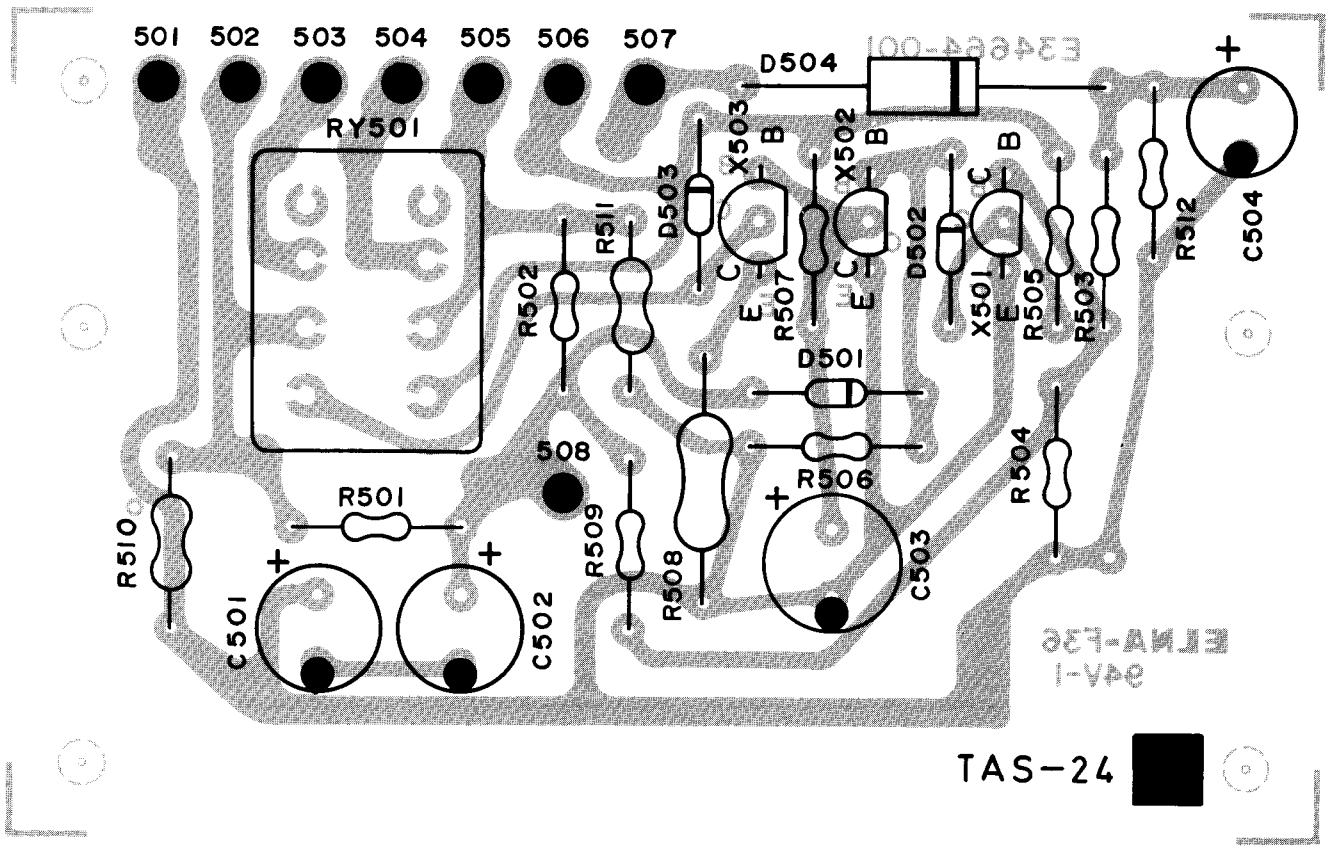



Fig. 24

## Transistors

| Item No. | Part Number | Rating | | Description | Maker |
|---|---|---|---|---|---|
| | | Pc | fT | | |
| X501 | 2SC1775AV (F) | 300mW | 200MHz | Silicon | Hitachi |
| X502 | 2SC1775AV (F) | " | " | " | " |
| X503 | 2SD438 (E) | 750mW | 100MHz | " | Sanyo |

## Diodes

| Item No. | Part Number | Rating | Description | Maker |
|---|---|---|---|---|
| D501 | 1S2473 | | Silicon | Toyo-Dengu |
| D502 | 1S2473 | | " | " |
| D503 | 1S2473 | | " | " |
| D504 | SIB01-02 | | " | |

## Capacitors

| Item No. | Part Number | Rating | | Description |
|---|---|---|---|---|
| C501 | QEW51AA-227 | 220μF | 10V | Electrolytic |
| C502 | QEW51AA-227 | 〃 | 〃 | 〃 |
| C503 | QEW51AA-227 | 〃 | 〃 | 〃 |
| C504 | QEW51HA-106 | 10μF | 50V | 〃 |

## Resistors

| Item No. | Part Number | Rating | | Description |
|---|---|---|---|---|
| R501 | QRD141J-563 | 56kΩ | 1/4W | Carbon |
| R502 | QRD141J-563 | 〃 | 〃 | 〃 |
| R503 | QRD141J-564 | 560kΩ | 〃 | 〃 |
| R504 | QRD141J-393 | 39kΩ | 〃 | 〃 |
| R505 | QRD141J-334 | 330kΩ | 〃 | 〃 |
| R506 | QRD141J-104 | 100kΩ | 〃 | 〃 |
| R507 | QRD141J-563 | 56kΩ | 〃 | 〃 |
| R508 | QRG017J-680 | 68Ω | 1W | Uninflammable O.M.F. |
| R509 | QRD141J-223 | 22kΩ | 1/4W | Carbon |
| R510 | QRD126J-102 | 1kΩ | 1/2W | Uninflammable O.M. |
| R511 | QRD126J-102 | 〃 | 〃 | 〃 |
| R512 | QRD141J-103 | 10kΩ | 1/4W | Ceramic |

## Other

| Item No. | Part Number | Rating | Description |
|---|---|---|---|
| | ESK1D24-216 | | Relay Switch |

# 8-(3) TXX-31C Speakers C.B. Ass'y

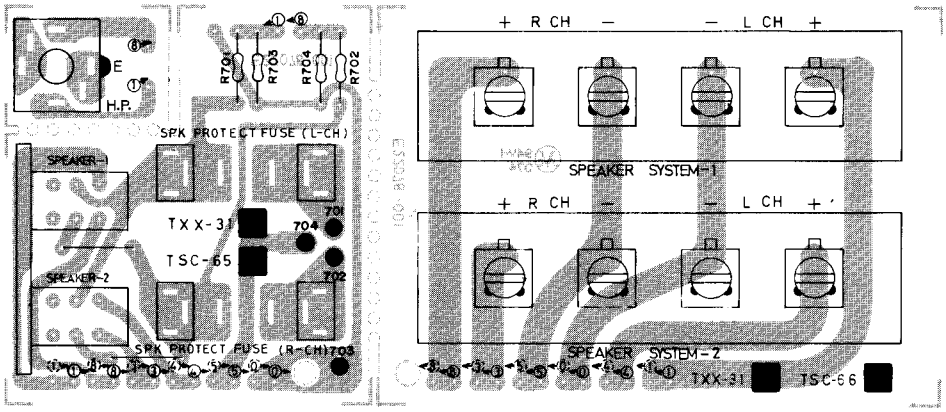



Fig. 25

## Resistors

| Item No. | Part Number | Rating | | Description |
|---|---|---|---|---|
| R701 | QRD126J-221 | 220Ω | 1/2W | Uninflammable Carbon |
| R702 | QRD126J-221 | " | " | " |

## Others

| Item No. | Part Number | Rating | Description |
|---|---|---|---|
| F1 | QMF51A2-3R15 | 3.15AT | Fuse (to be ordered separately) |
| F2 | QMF51A2-3R15 | " | " ( " ) |
| J1 | QMS6301-001 | | Jack Ass'y |
| | E03572-004C | | Speaker Terminal Board |
| | QSP0229-004 | | Push Switch |
| | E48965-002 | | Fuse Clip |
| | E46264-011 | | Fuse Label |

# 8-(4) TPS-53R Fuse C.B. Ass'y

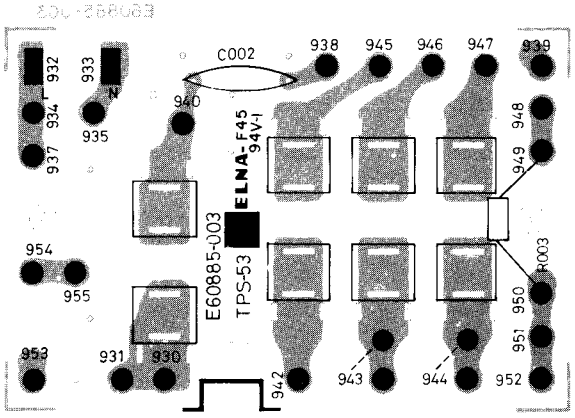



Fig. 26

## Capacitor

| Item No. | Part Number | Rating | | Description |
|---|---|---|---|---|
| C002 | QCZ9009-101 | 100pF | AC 4kV | Ceramic |

## Others

| Item No. | Part Number | Rating | Description |
|---|---|---|---|
| F3 | QMF51A2-1R25 | 1.25AT | Fuse (to be ordered separately) |
| F4 | QMF51A2-3R15 | 3.15AT | " ( " ) |
| F5 | QMF51A2-3R15 | " | " ( " ) |
| F6 | QMF51A2-1R0 | 1AT | " ( " ) |
| | E48965-002 | | Fuse Clip |
| | E46264-003 | 1AT | Fuse Label |
| | E46264-005 | 1.25AT | " |
| | E46264-011 | 3.15AT | " |

# 8-(5) TSC-64A Tape C.B. Ass'y

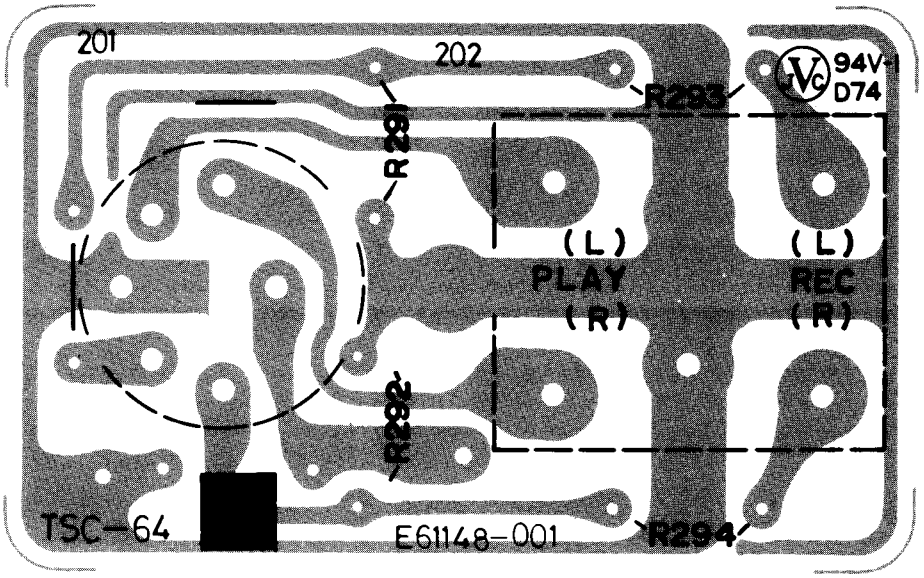



Fig. 27

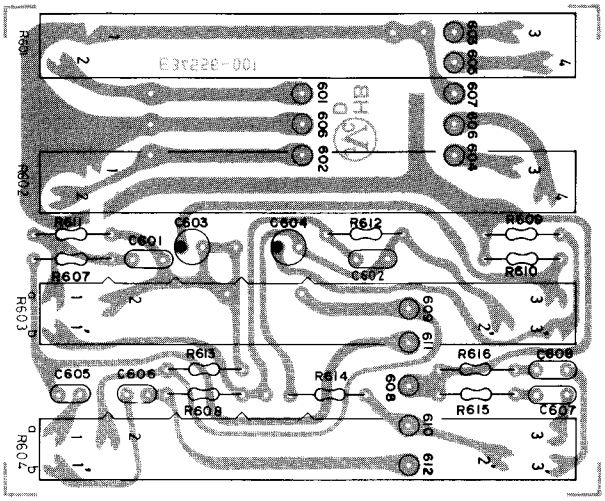
## Resistors

| Item No. | Part Number | Rating | | Description |
|---|---|---|---|---|
| R291 | QRD181J-124 | 120kΩ | 1/8W | Carbon |
| R292 | QRD181J-124 | " | " | " |
| R293 | QRD181J-334 | 330kΩ | " | " |
| R294 | QRD181J-334 | " | " | " |

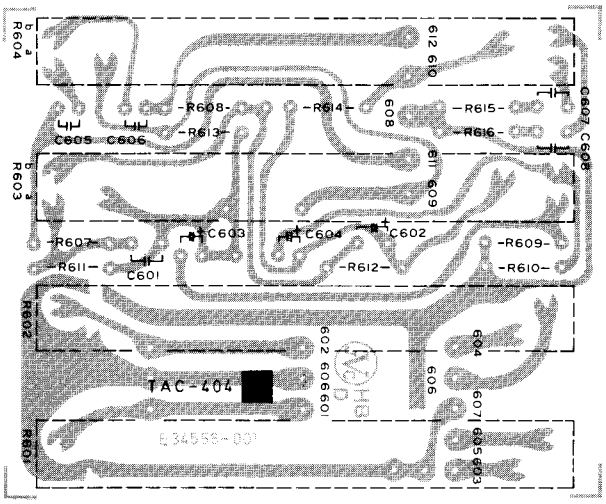
## Others

| Item No. | Part Number | Rating | Description |
|---|---|---|---|
| | E03623-002 | | DIN Socket |
| | E63591-41D | | Pin Jack Ass'y |

# 8-(6) TAC-404A Tone Control C.B. Ass'y



Front View
Fig. 28-A



Rear View
Fig. 28-B

## Capacitors

| Item No. | Part Number | Rating | | Description |
|---|---|---|---|---|
| C601 | QFM41HK-273 | 0.027μF | 50V | Mylar |
| C602 | QFM41HK-273 | 〃 | 〃 | 〃 |
| C603 | QEB41HM-224 | 0.22μF | 〃 | L.L.C. Electrolytic |
| C604 | QEB41HM-224 | 〃 | 〃 | 〃 |
| C605 | QFM41HK-332 | 3300pF | 〃 | Mylar |
| C606 | QFM41HK-332 | 〃 | 〃 | 〃 |
| C607 | QFM41HK-333 | 0.033μF | 〃 | 〃 |
| C608 | QFM41HK-333 | 〃 | 〃 | 〃 |

## Resistors

| Item No. | Part Number | Rating | | Description |
|---|---|---|---|---|
| R601 | QVT6C2B-5G5E | | | Variable |
| R602 | QVT6C2B-5G5E | | | 〃 |
| R603 | QVR4C2C-215 | | | Slide Volume |
| R604 | QVR4C2C-215 | | | 〃 |
| R607 | QRD141J-123 | 12kΩ | 1/4W | Carbon |
| R608 | QRD141J-123 | 〃 | 〃 | 〃 |
| R609 | QRD141J-152 | 1.5kΩ | 〃 | 〃 |
| R610 | QRD141J-152 | 〃 | 〃 | 〃 |
| R611 | QRD141J-104 | 100kΩ | 〃 | 〃 |
| R612 | QRD141J-152 | 〃 | 〃 | 〃 |
| R613 | QRD141J-182 | 1.8kΩ | 〃 | 〃 |
| R614 | QRD141J-182 | 〃 | 〃 | 〃 |
| R615 | QRD141J-561 | 560Ω | 〃 | 〃 |
| R616 | QRD141J-561 | 〃 | 〃 | 〃 |

## Others

| Item No. | Part Number | Rating | Description |
|---|---|---|---|
| | E03565-5B0 | | 5 Pins Socket |
| | E34428-001 | | Control Bracket |
| | E60882-001 | | Felt Spacer |

# 8-(7) TAC-420 Buffer & Equalizer Amp. C.B. Ass'y

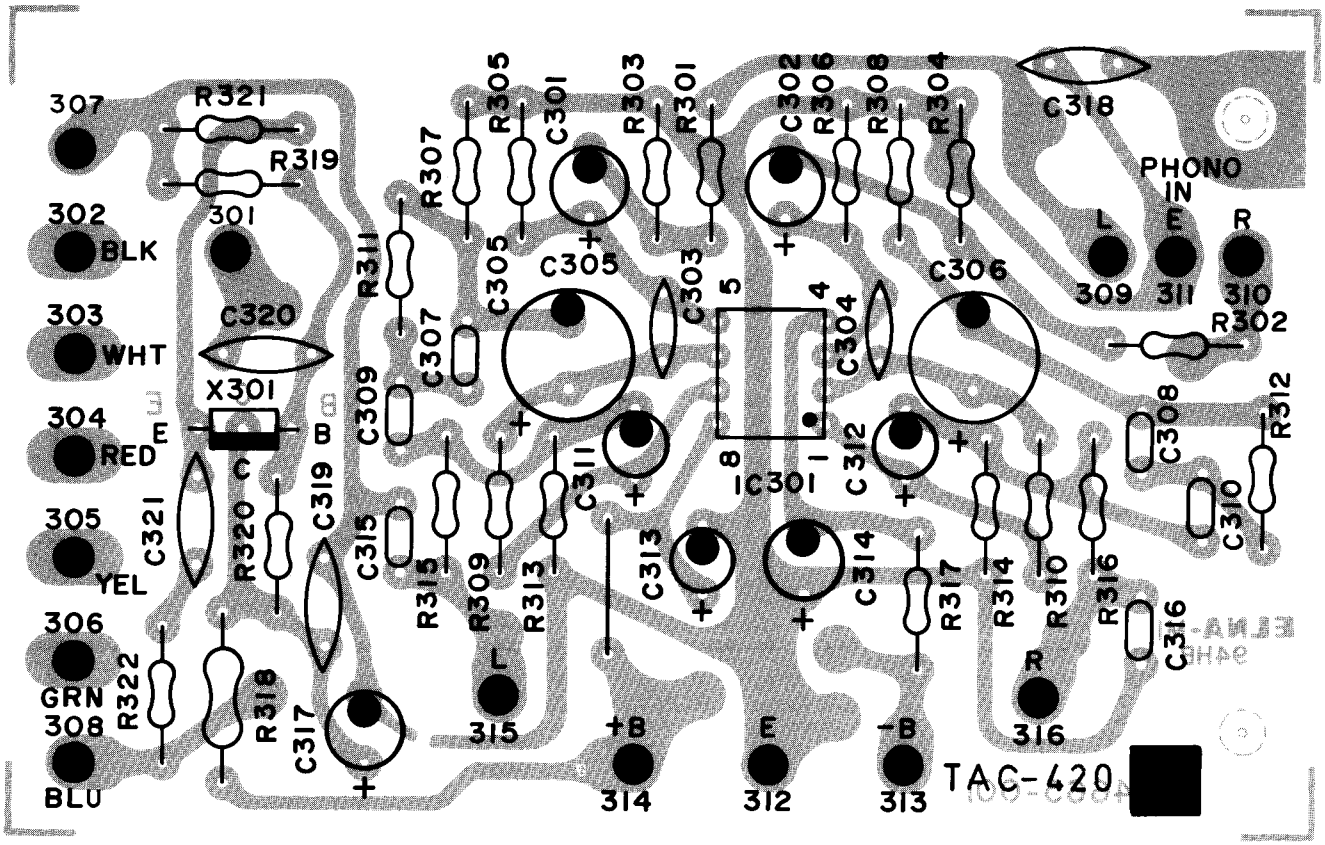



Fig. 29

## Transistor

| Item No. | Part Number | Rating | | Description | Maker |
|---|---|---|---|---|---|
| | | Pc | fT | | |
| X301 | 2SC461 (B) | 200mW | 230MHz | Silicon | Hitachi |

## Integrated Circuit

| Item No. | Part Number | Rating | Description | Maker |
|---|---|---|---|---|
| IC301 | NJM4558D-D | 500mW | I.C. | J.R.C. |

## Capacitors

| Item No. | Part Number | Rating | | Description |
|---|---|---|---|---|
| C301 | QEB51EM-475 | 4.7μF | 25V | L.L.C. Electrolytic |
| C302 | QEB51EM-475 | 〃 | 〃 | 〃 |
| C303 | QCS31HJ-331 | 330pF | 50V | Ceramic |
| C304 | QCS31HJ-331 | 〃 | 〃 | 〃 |
| C305 | QEW51AA-107 | 100μF | 10V | Electrolytic |
| C306 | QEW51AA-107 | 〃 | 〃 | 〃 |
| C307 | QFZ0021-102 | 1000pF | 50V | Mylar |
| C308 | QFZ0021-102 | 〃 | 〃 | 〃 |
| C309 | QFZ0021-332 | 3300pF | 〃 | 〃 |
| C310 | QFZ0021-332 | 〃 | 〃 | 〃 |
| C311 | QEW51HA-475 | 4.7μF | 〃 | Electrolytic |
| C312 | QEW51HA-475 | 〃 | 〃 | 〃 |
| C313 | QEW51HA-475 | 〃 | 〃 | 〃 |
| C314 | QEW51CA-476 | 47μF | 16V | 〃 |
| C315 | QFZ0021-102 | 1000pF | 50V | Mylar |
| C316 | QFZ0021-102 | 〃 | 〃 | 〃 |
| C317 | QEW51CA-476 | 47μF | 16V | Electrolytic |
| C318 | QCF31HP-103 | 0.01μF | 50V | Ceramic |
| C319 | QCZ0107-473 | 0.047μF | 25V | 〃 |
| C320 | QCZ0107-473 | 〃 | 〃 | 〃 |
| C321 | QCZ0107-473 | 〃 | 〃 | 〃 |

## Resistors

| Item No. | Part Number | Rating | | Description |
|---|---|---|---|---|
| R301 | QRD181J-222 | 2.2kΩ | 1/8W | Carbon |
| R302 | QRD181J-222 | 〃 | 〃 | 〃 |
| R303 | QRD181J-104 | 100kΩ | 〃 | 〃 |
| R304 | QRD181J-104 | 〃 | 〃 | 〃 |
| R305 | QRD181J-104 | 〃 | 〃 | 〃 |
| R306 | QRD181J-104 | 〃 | 〃 | 〃 |
| R307 | QRD181J-102 | 1kΩ | 〃 | 〃 |
| R308 | QRD181J-102 | 〃 | 〃 | 〃 |
| R309 | QRD181J-824 | 820kΩ | 〃 | 〃 |
| R310 | QRD181J-824 | 〃 | 〃 | 〃 |
| R311 | QRD181J-753 | 75kΩ | 〃 | 〃 |
| R312 | QRD181J-753 | 〃 | 〃 | 〃 |
| R313 | QRD181J-473 | 47kΩ | 〃 | 〃 |
| R314 | QRD181J-473 | 〃 | 〃 | 〃 |
| R315 | QRD181J-102 | 1kΩ | 〃 | 〃 |
| R316 | QRD181J-102 | 〃 | 〃 | 〃 |
| R317 | QRD181J-391 | 390Ω | 〃 | 〃 |
| R318 | QRD126J-470 | 47Ω | 1/2W | Uninflammable Carbon |
| R319 | QRD181J-153 | 15kΩ | 1/8W | Carbon |
| R320 | QRD181J-104 | 100kΩ | 〃 | 〃 |
| R321 | QRD181J-222 | 2.2kΩ | 〃 | 〃 |
| R322 | QRD181J-821 | 820Ω | 〃 | 〃 |

# 9. Packing Materials List

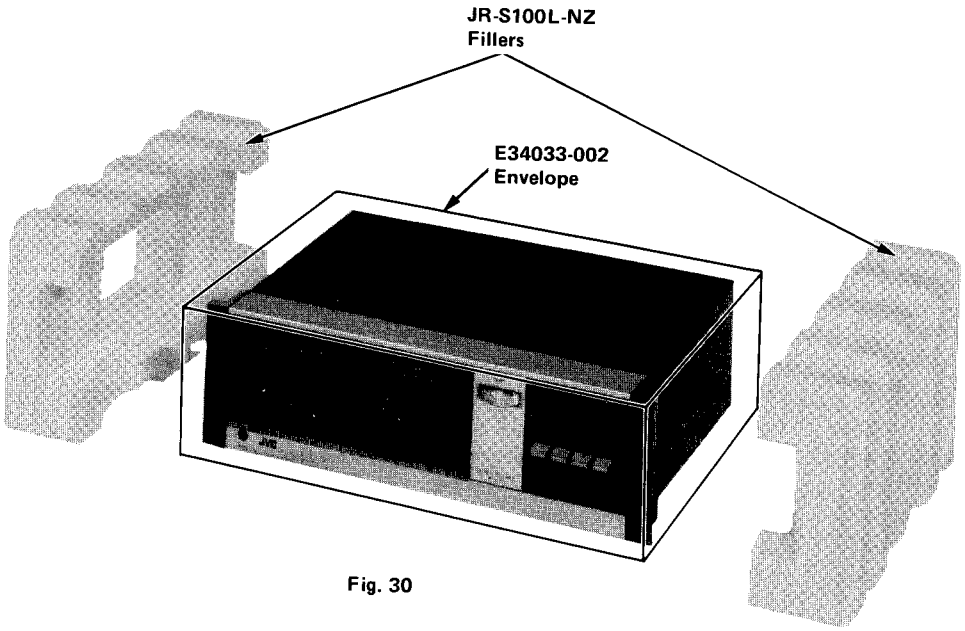



Fig. 30

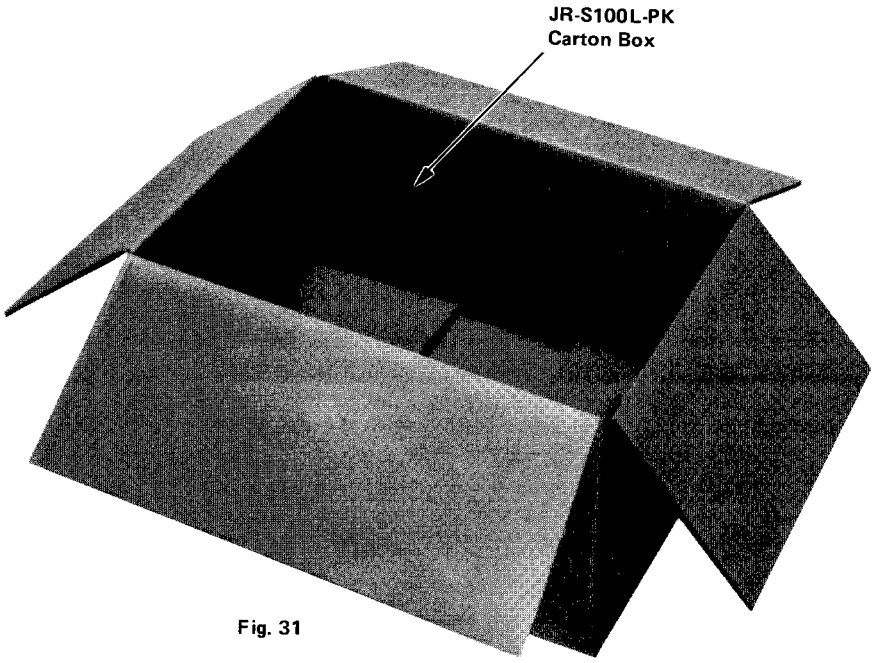
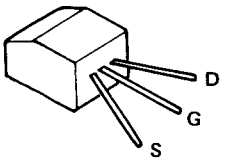



Fig. 31

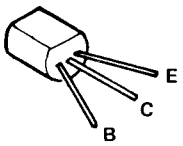
# 10. Accessories List

| Part Number | Description | Q'ty |
|---|---|---|
| E30580-531A | Instruction Book | 1 |
| E64207-002 | Envelope for Instruction Book | 1 |

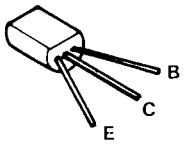
# 11. Transistor, I.C. and Diode Lead Identification



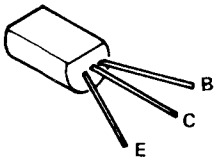

2SK40 ( C )



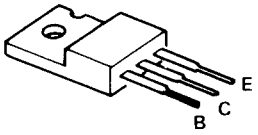

2SC711 (F)
2SC710 (B)



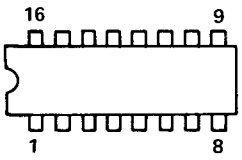

2SA872AV (E)
2SC1775AV (F)



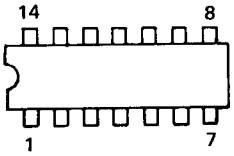

2SD438 (E)
2SB560 (E)



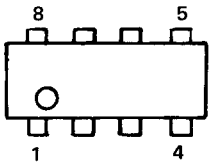

2SD325 (E)
2SD313 (D, E)
2SB507 (D, E)



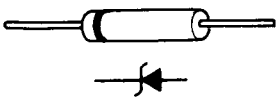

AN217BB



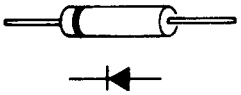

HA1156W



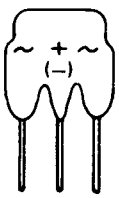

NJM4558D-D



E0771-12 (WZ-130)
WZ-090



1S2473
1S2473F
1S188FM
SIB01-02

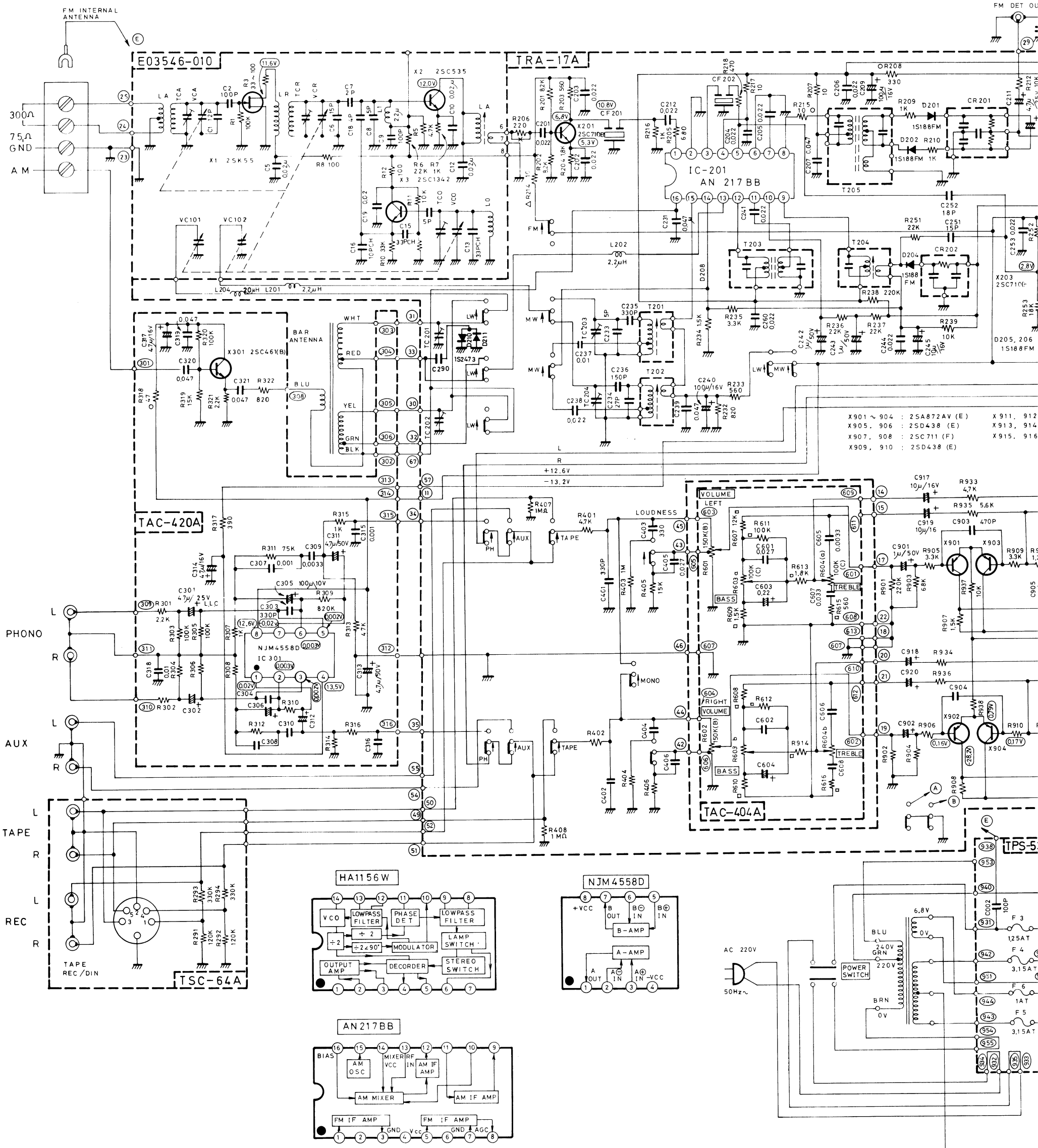



ESAB02-02C(N)

Fig. 32

MEMO

# 13. Schematic Diagram













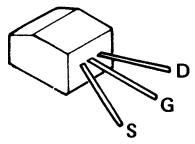
## Circuit Board Ass'y Locations

| C.B. Ass'y | Description | Page |
|---|---|---|
| TRA-17 | FM/MW/LW Tuner & Audio Amp. C.B. Ass'y | 13 |
| TAS-24 | Protector C.B. Ass'y | 21 |
| TXX-31C | Speakers C.B. Ass'y | 23 |
| TPS-53R | Fuse C.B. Ass'y | 23 |
| TSC-64C | Tape C.B. Ass'y | 24 |
| TAC-404C | Tone Control C.B. Ass'y | 25 |
| TAC-420 | Buffer & Equalizer Amp. C.B. Ass'y | 26 |

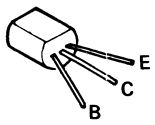
**Precaution**

After replacement of output and driver transistors, check the bias adjustment (see power amplifier adjustment on page 12).

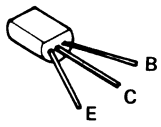
**Transistor, IC and Diode Lead Identification**



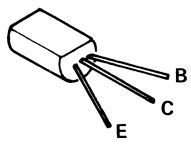

2SK40 (C)



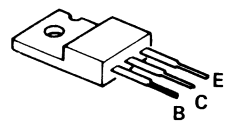

2SC711 (F)
2SC710 (B)



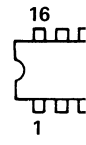

2SA872AV (E)
2SC1775AV (F)




2SD438 (E)
2SB560 (E)




2SD325 (E)
2SD313 (D, E)
2SB507 (D, E)




A

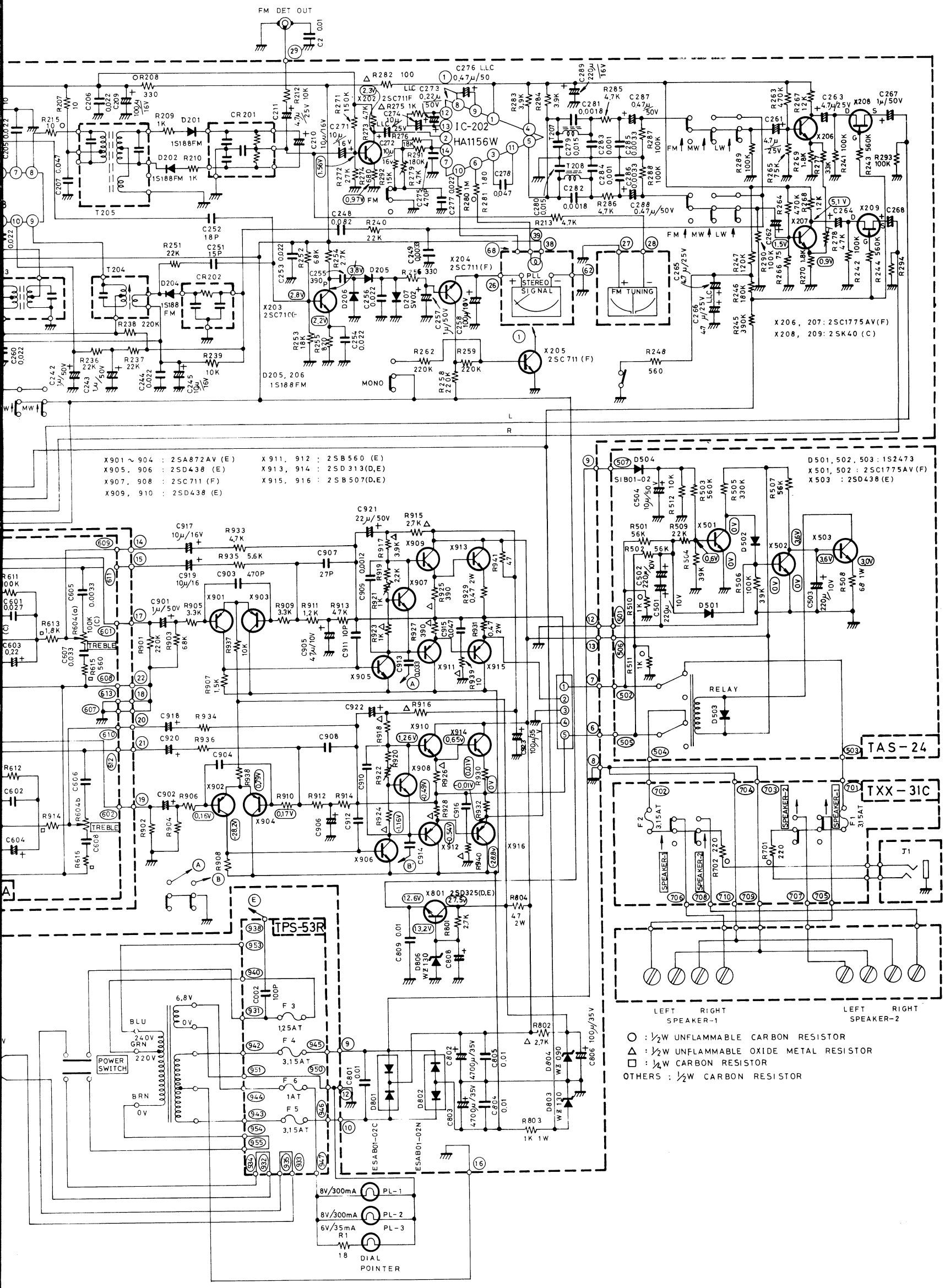
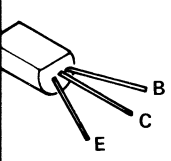
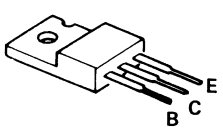


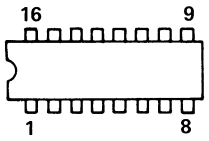

Fig. 33



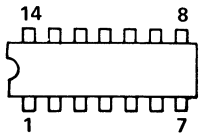

2SD438 (E)
2SB560 (E)



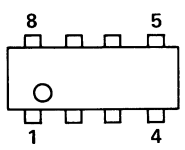

2SD325 (E)
2SD313 (D, E)
2SB507 (D, E)




AN217BB




HA1156W

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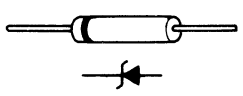
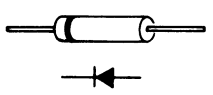
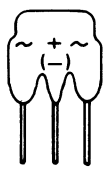


E0771-12 (WZ-130)
WZ-090



1S2473
1S2473F
1S188FM
SIB01-02

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